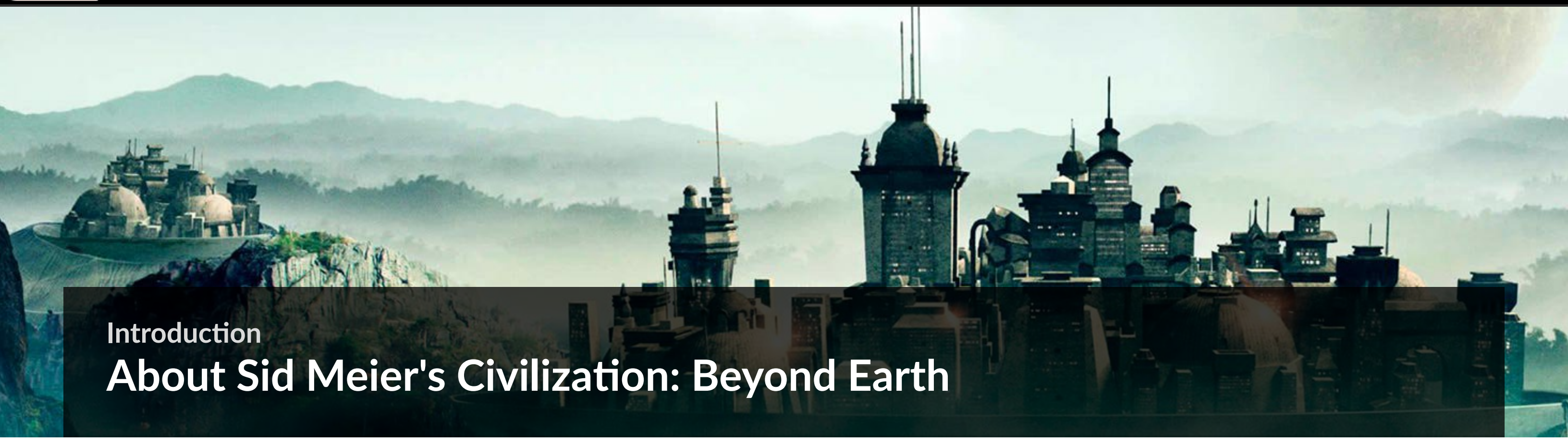


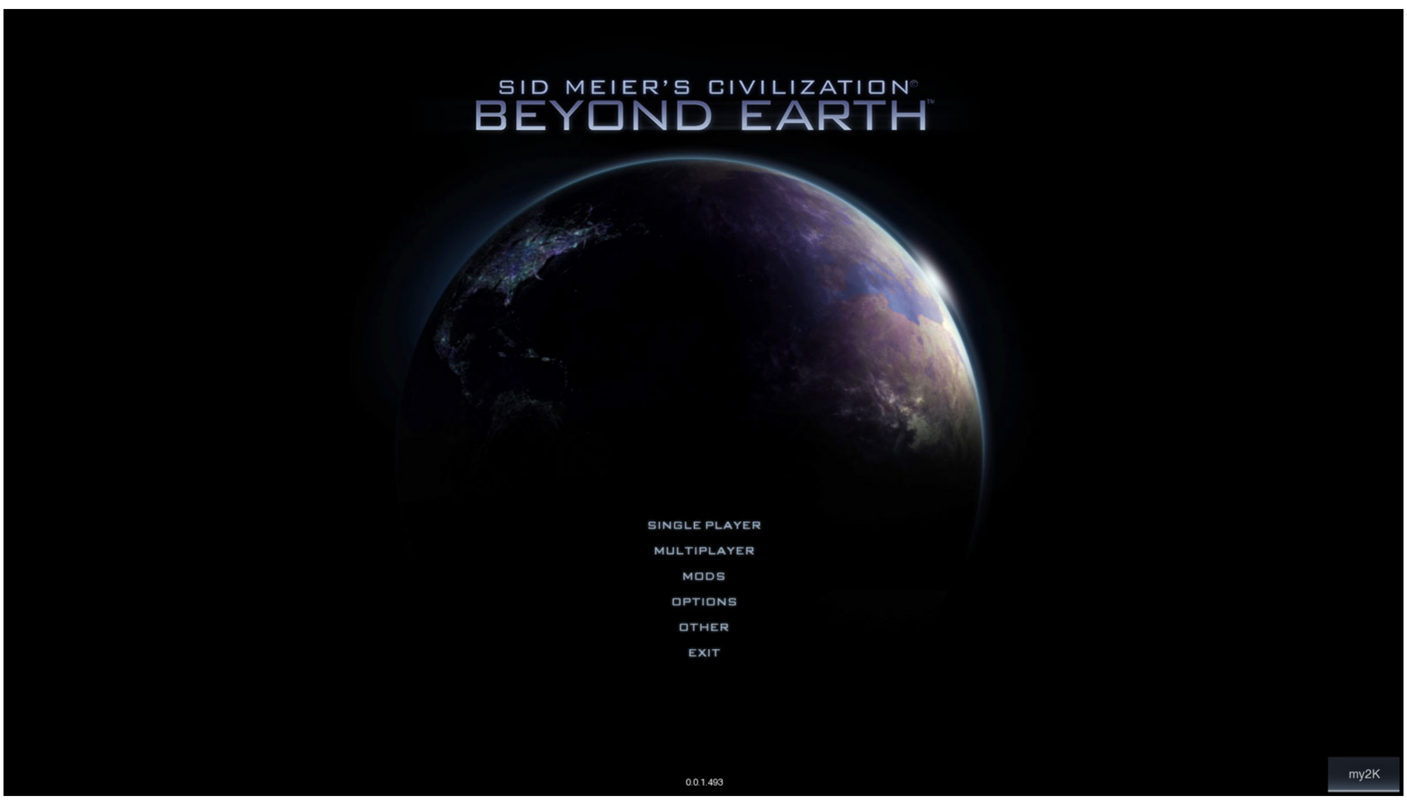
Introduction

About Sid Meier's Civilization: Beyond Earth

PLANETFALL IN 3...2...1

Civilization: Beyond Earth takes the series into deep space and beyond. This time, you won't be settling ancient lands and learning how to use stone, metal, and fire to forge an empire. Instead, this will be the time of nanotechnology, aliens, and orbital weaponry.

Civilization: Beyond Earth is a turn-based strategy game with everything that the genre is loved for: exploration, exploitation, expansion, and extermination of your enemies. This book covers the statistics, tactics, and strategies that are essential for mastering the game, whether you're playing against the computer or your friends. We'll explain what the in-game stats mean and then review the best ways to use everything that you're going to encounter.



There are 16 chapters in this guide because there is a huge amount of material to go through. We've divided the book conceptually, so that you can jump to any subject that piques your interest.

The Starting a Game and Core Concepts chapters take you through the game's options and changes/similarities between *Civilization: Beyond Earth* and other games in the series.

Next, we'll go through the massive number of units, buildings, wonders, terrain types, and technology in this game. Though these look like reference chapters, each entry goes on to discuss the usage, advantages, and warnings for all of these items. You can't build an advanced strategy without knowing all of the features and components at your fingertips. These chapters help you master those elements.

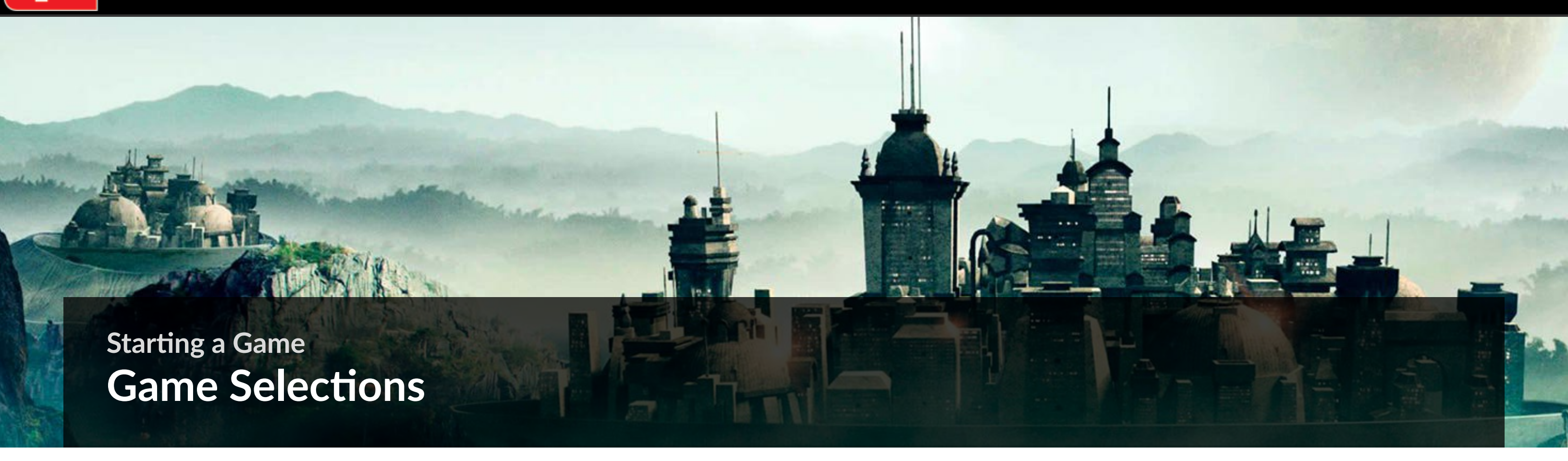
Afterward, we'll get into specific strategies about the major aspects of the game: quests, affinities, virtues, trade routes, stations, and covert operations. With all of the rudiments already covered, we'll be able to lead you into advanced discussions of these higher-tier concepts.

<< Excerpts from Colony Archives >>
<< Personal Log, Vadim Petrovich Kozlov >>

[[CED.1569.73]]

Space offers so much. To share its wonders with my family is a joy I cannot express. My children will have a future on a new world. They will make discoveries that on Earth would have been impossible. Together, we will face the future and finally be free to live the life I worked so hard to secure.

Toward the latter section of the guide, we'll get into examples of single-player and multiplayer games. We'll demonstrate the concepts that were shown throughout the guide and talk about how they work (and when they don't) in real games.



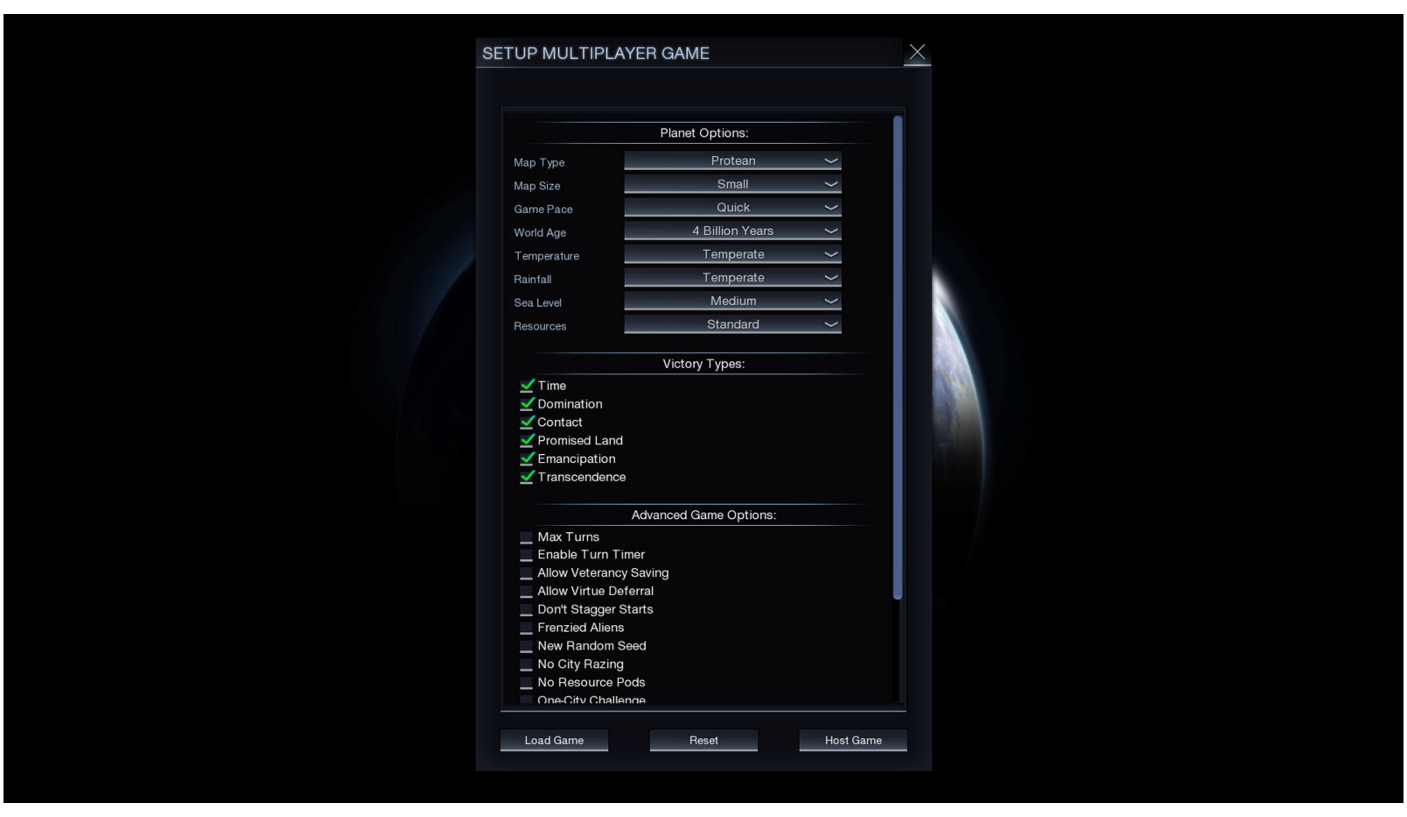
GAME OPTIONS

Before immediately jumping in, it is important to first learn about *Civilization: Beyond Earth's* options, hotkeys, setup, and Colonies. These features (with the exception of the Colonies) are similar close to earlier *Civilization* releases. Colonies are covered in subsequent sections.

First, load the game and look at the main menu. There are a few features here, and it is worth finding out what they all do.

Single Player is for creating or loading a game against the computer. A later section of this chapter will deal with the actual setup of a game.

Multiplayer is similar in setup, but it is important to understand if the game is to be set up locally (Hot Seat, using the same computer for all players) or across multiple computers (Standard). If playing with multiple computers is more suitable, there are two options. Games can be set up on the local network (which only allows computers connected to the same network) or through the Internet. Setup continues similarly to Single Player.



SETUP MULTIPLAYER GAME

Planet Options:

Map Type: Protean
Map Size: Small
Game Pace: Quick
World Age: 4 Billion Years
Temperature: Temperate
Rainfall: Temperate
Sea Level: Medium
Resources: Standard

Victory Types:

☑ Time
☑ Domination
☑ Contact
☑ Promised Land
☑ Emancipation
☑ Transcendence

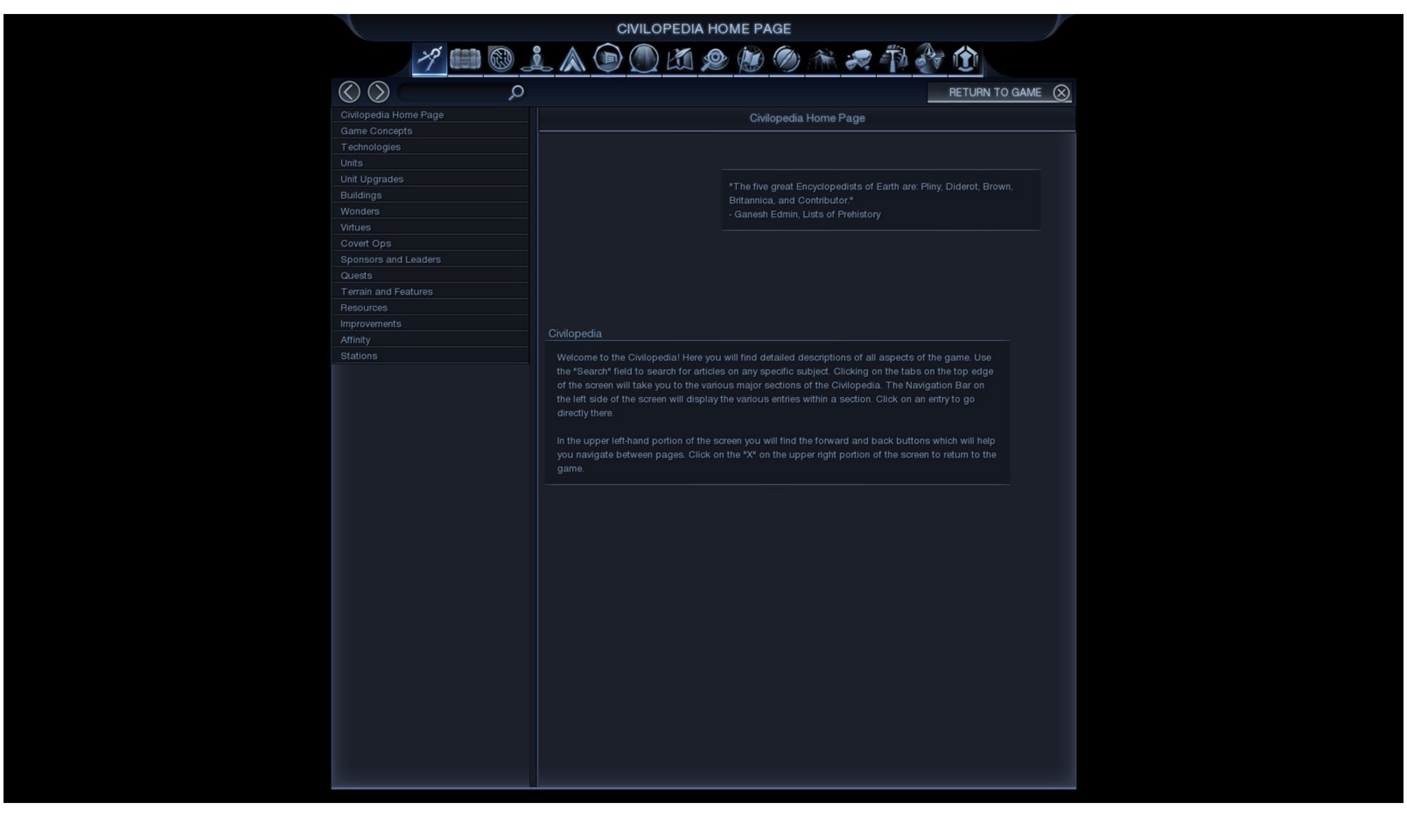
Advanced Game Options:

☐ Max Turns
☐ Enable Turn Timer
☐ Allow Veterancy Saving
☐ Allow Virtue Deferral
☐ Don't Stagger Starts
☐ Frenzied Aliens
☐ New Random Seed
☐ No City Razing
☐ No Resource Pods
☐ One-City Challenge

The Mods system allows the ability to control which game mods are used in upcoming games. This is not a major feature during the early weeks of the game's release, but it becomes more and more exciting as time goes on. People create all sorts of fun mods to play with that may feature different units, alter the rules, or generate new map challenges, scenarios, etc. Search online to find ongoing content and keep the game fresh for months (or years) to come!

The Other selection on the menu gives several choices. Latest News provides information on any updates on the game and its continued development. The Civilopedia is a perfect source for fast information about units, buildings, concepts, and so forth. This guide covers everything that is in the Civilopedia, but it makes looking up basic stats quicker while in game.

The Hall of Fame keeps track of the player's best games; it lists the score, civilization, type of victory, settings, and time played. This is a good way to see which styles are the strongest. It is helpful for continued growth as a player. It is a good way to see what aspects and playstyles need to be worked or avoided.



CIVILOPEDIA HOME PAGE

Civilopedia Home Page

"The five great Encyclopedists of Earth are: Pliny, Diderot, Brown, Britannica, and Contributor."
- Ganesh Edmin, Lists of Prehistory

Civilopedia

Welcome to the Civilopedia! Here you will find detailed descriptions of all aspects of the game. Use the "Search" field to search for articles on any specific subject. Clicking on the tabs on the top edge of the screen will take you to the various major sections of the Civilopedia. The Navigation Bar on the left side of the screen will display the various entries within a section. Click on an entry to go directly there.

In the upper left-hand portion of the screen you will find the forward and back buttons which will help you navigate between pages. Click on the "X" on the upper right portion of the screen to return to the game.

View Replays reviews previous games to look through a stunning number of metrics. Use this system to learn where the best power spikes are so preparing for them in the future becomes easier. "Oh, I'm often strongest here and weakest at this point in the game." Knowing those things is wonderful for mitigating enemy attacks and maximizing forays.

View the Credits to see all of the people who put their time into this game.

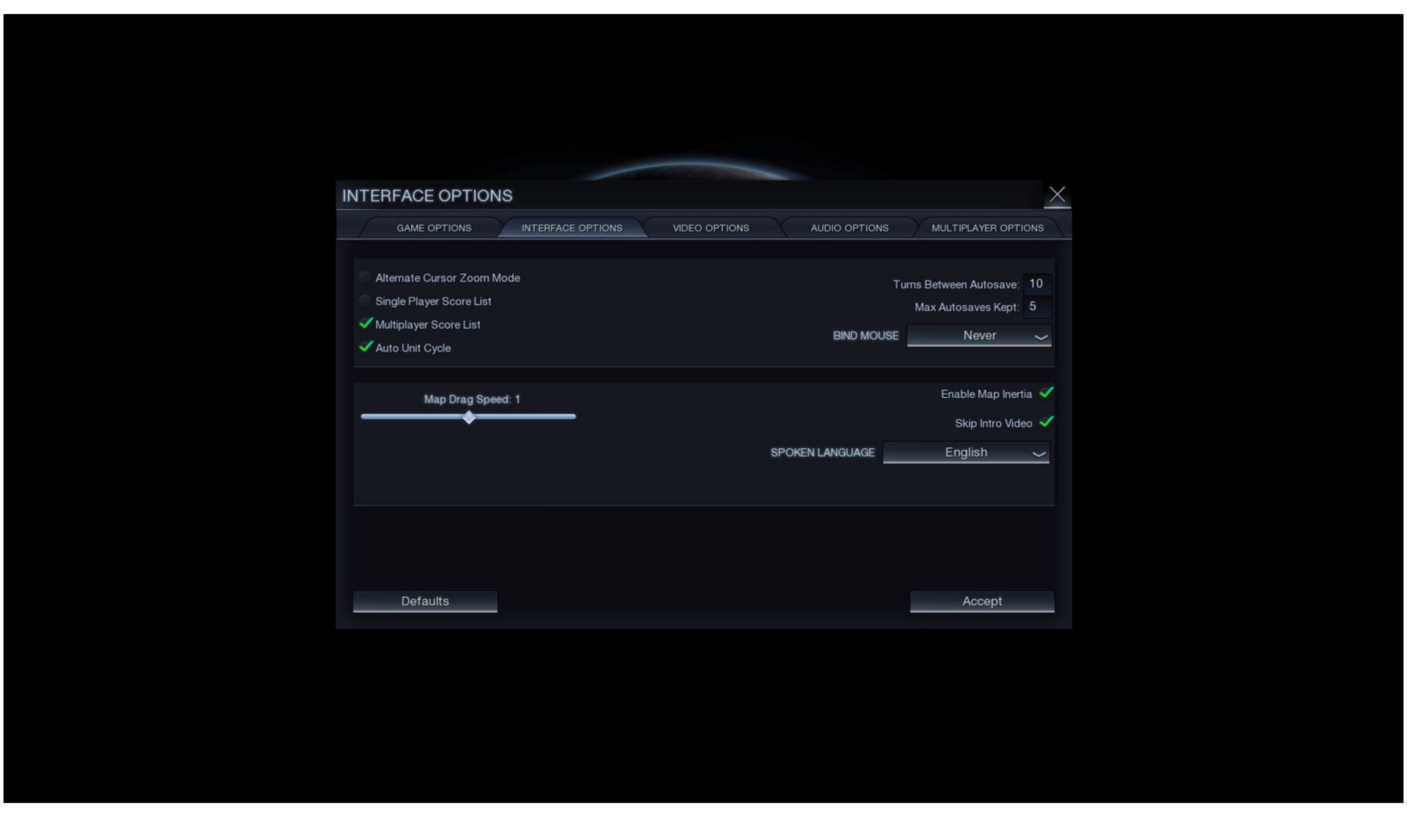
Options was saved for last, as it hosts a number of interesting features that should be mentioned.

The Options Menu

The Options menu has multiple tabs. The Video and Audio Options let you control how the game is presented. That is mostly dictated by the computer setup and personal interests, so explore these settings to see which is the most comfortable.

Use Multiplayer Options to determine the name that appears when playing locally. This may not be too important, but can help when notifying other players which game to join.

The Interface Options start to get a bit more involved. If there are any problems with the system or more autosaves are needed this is the section that would prove most useful. This tab also allows the Spoken Language, Mouse settings, and the Map Drag Speed to be changed.



INTERFACE OPTIONS

○ Alternate Cursor Zoom Mode
○ Single Player Score List
✓ Multiplayer Score List
✓ Auto Unit Cycle

Turns Between Autosave: 10
Max Autosaves Kept: 5
BIND MOUSE: Never

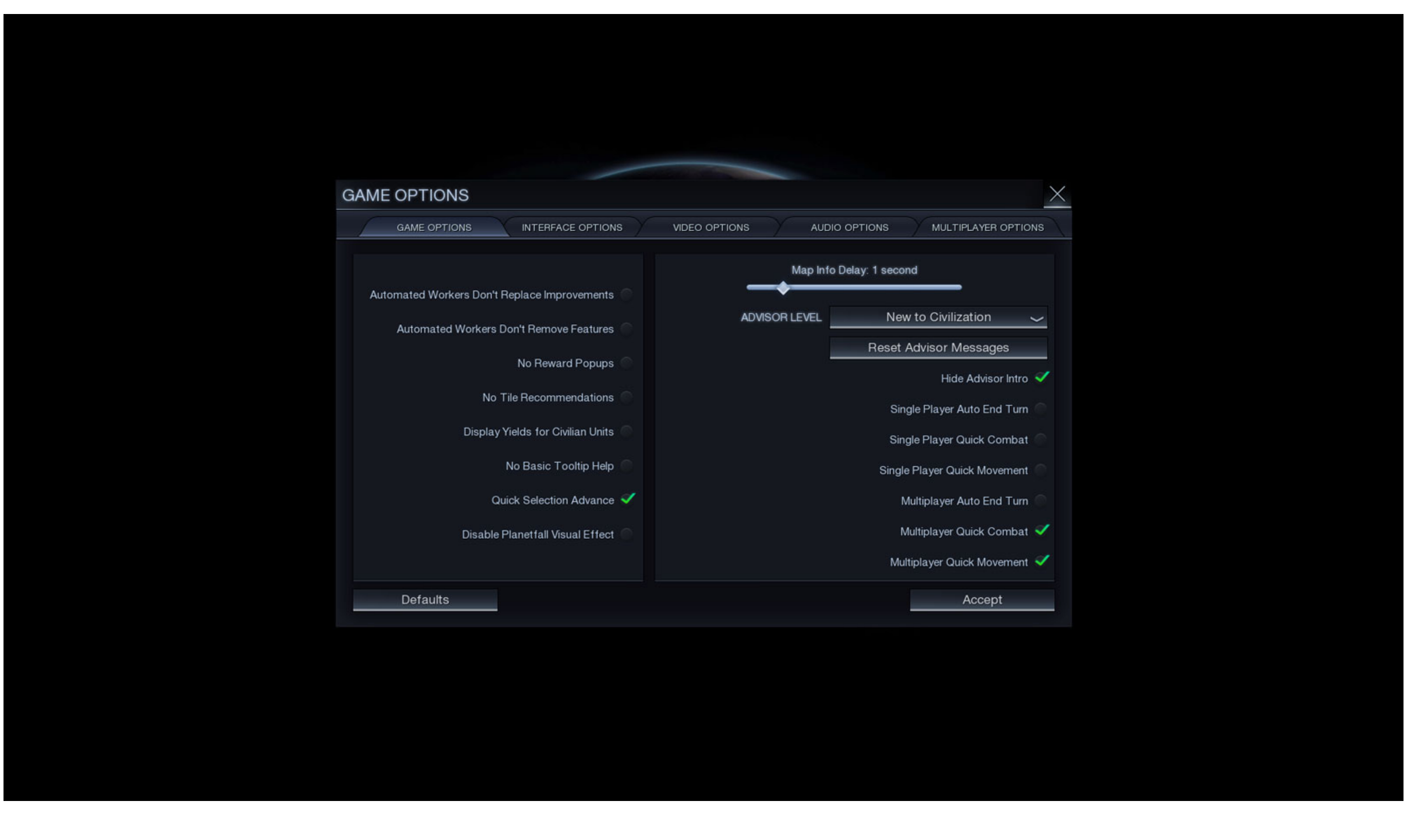
Map Drag Speed: 1

Enable Map Inertia ✓
Skip Intro Video ✓
SPOKEN LANGUAGE: English

The Score Lists in the Interface Options tab are useful, too. By default, the game keeps the score in the Diplomacy menu during single-player. Players have the option to toggle the score list on, making it easier to view in game without opening the Diplomacy menu. This is helpful for keeping tabs on opponents. Seeing their scores all the time allows players to view any changes that are occurring.

Game Options has even more settings to explore. It may be a good idea to check both options that limit automated workers. In not checking these, workers may end up doing the complete opposite of what the player may consider beneficial, if not watched closely.

To speed up the game by a huge margin, use quick combat and quick movement in single-player and multiplayer games. Cutting off these animations reduces the cinematic nature of the game, but it shaves many minutes off of playtimes.



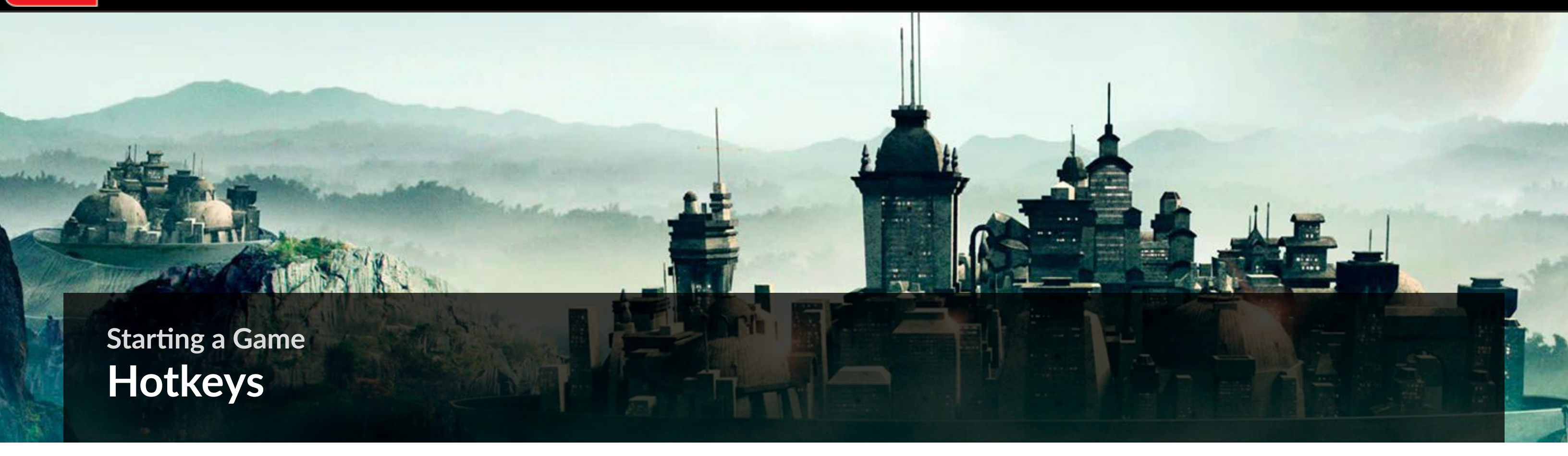
GAME OPTIONS

Automated Workers Don't Replace Improvements ○
Automated Workers Don't Remove Features ○
No Reward Popups ○
No Tile Recommendations ○
Display Yields for Civilian Units ○
No Basic Tooltip Help ○
Quick Selection Advance ✓
Disable Planetfall Visual Effect ○

Map Info Delay: 1 second
ADVISOR LEVEL: New to Civilization

Hide Advisor Intro ✓
Single Player Auto End Turn ○
Single Player Quick Combat ○
Single Player Quick Movement ○
Multiplayer Auto End Turn ○
Multiplayer Quick Combat ✓
Multiplayer Quick Movement ✓

The Advisor Level is used to determine how much help a player may need. Each level pertains to different degrees of help. For example, New to Civilization would be perfect for a player who has never played any Civilization games. Players can turn this off once they know the game well.



GENERAL HOTKEYS

It is easy to ignore hotkeys when the mouse can take care of any problem in the game. However, learning the hotkeys make it faster and easier to switch between multiple systems in the game. The faster this process is, the easier it will be to take advantage of everything the game has to offer.

General Hotkeys

Action	Hotkey
Civilopedia	F1
Economic Info	F2
Military Info	F3
Diplomacy Info	F4
Virtues Screen	F5
Tech Web	F6
Covert Ops Overview	Ctrl-E
Notification Log	F7
Victory Progress	F8
Quest Log	F9
Trade Route Overview	F10
Quick Save	F11
Quick Load	Ctrl-F11
Hex Grid	Shift-G
Menu	Esc
End Turn	Enter
Next Unit	Period
Previous Unit	Comma
Zoom Out	-
Zoom In	+
City Manager View	Insert
Zoom In	Page Up
Zoom Out	Page Down
Show Resource Icons	Shift-R
Show Yield Icons	Shift-Y
Orbital Layer	Shift-O
Save	Ctrl-S
Load	Ctrl-L
Next City	]
Previous City	[

UNIT HOTKEYS

It takes longer to learn and remember all of the unit hotkeys. It is not necessary to get all of them down quickly, or even at all. Just remember the few that are used the most: "H" to heal, "F" to fortify a unit and let it sleep in an area, "B" for ranged attacks (think of it as "bombard," and you'll remember it every time), and "S" for air strikes.

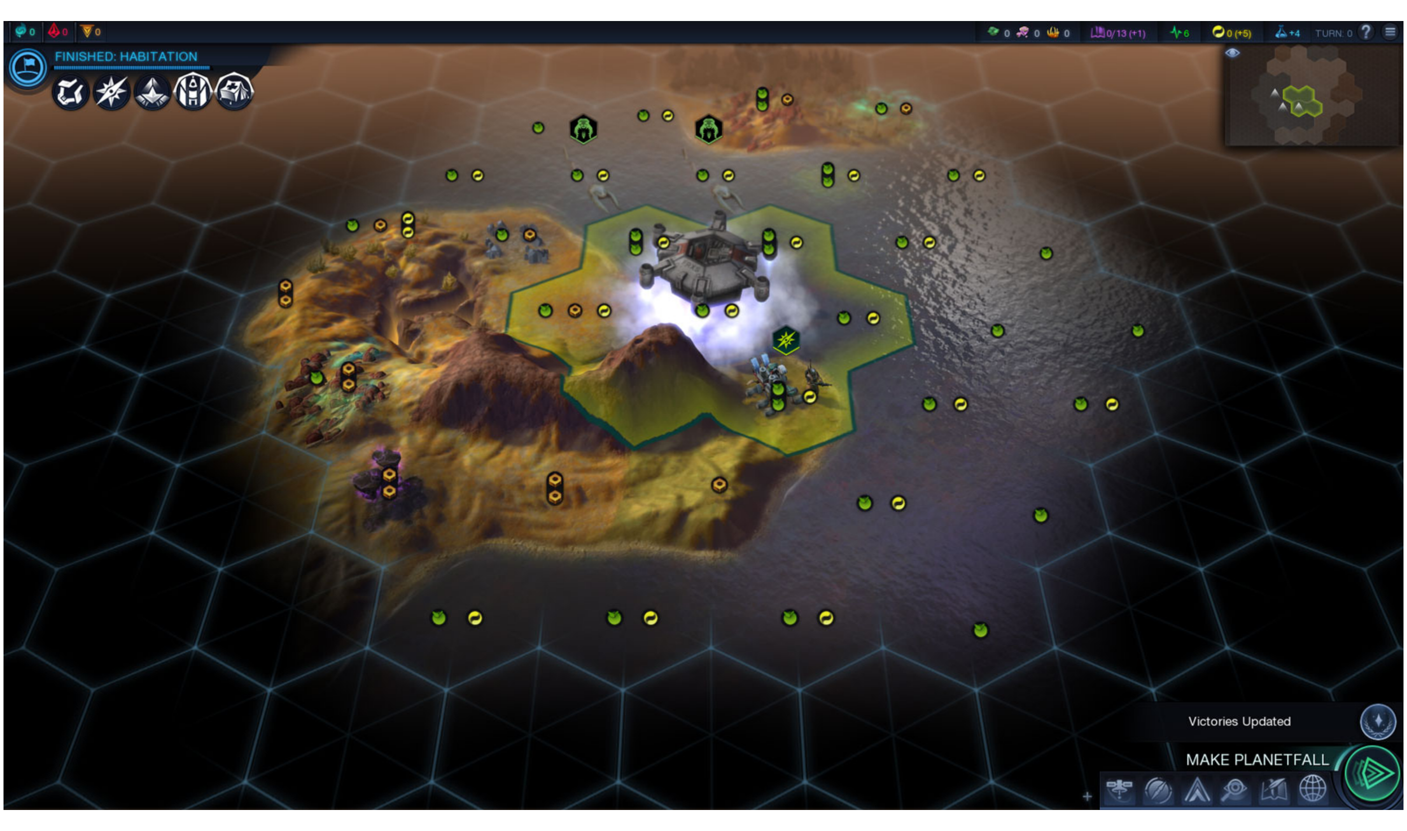
Unit Hotkeys

Action	Hotkey
Move Mode	M
Explore (Automated)	E
Sleep	F
Alert	A
Do Nothing	Spacebar
Delete the Unit	Delete
Attack	Ctrl-A
Ranged Attack	B
Set up Artillery	S
Fortify until Healed	H
Fortify	F
Rebase Mode	Alt-R
Air Strike Mode	S
Air Sweep	Alt-S
Intercept	I
Found City	B
Build Improvements (Automated)	A
Repair an Improvement	P
Construct a Road	R
Construct a Magrail	E
Route to Mode	Shift-Ctrl-R
Remove Road	Alt-R
Clear a Marsh	Alt-I
Clear Miasma	S
Add Miasma	S
Construct a Farm	L
Construct a Generator	G
Construct a Paddock	I
Construct a Mine	I
Construct a Plantation	I
Construct a Quarry	I
Construct a Work Barge	I
Construct a Terrascape	T
Construct a Node	O
Construct an Array	D
Construct a Dome	U
Construct a Biowell	Y
Construct a Manufactory	W
Construct an Academy	Q
Construct a Geothermal Well	I
Construct a Petroleum Well	I
Remove Forest	Alt-I
Cancel Last Mission	Backspace
Construct an Expedition	I
Construct a Xenomass Well	I
Construct a Float Stone Quarry	I
Construct a Firaxite Mine	I

Starting a Game

Setting Up Your Own Match

Some players like to jump in immediately and figure out everything on the fly. That's great! Go ahead and make a game now, and get started. Come back to this guide later, when you're ready to learn more.



The Setup Option allows the player to choose a number of features for their game. Including but not limited to, Game Pace, Difficulty, Map Size, Sponsor, Colonists, and Planet to name a few.

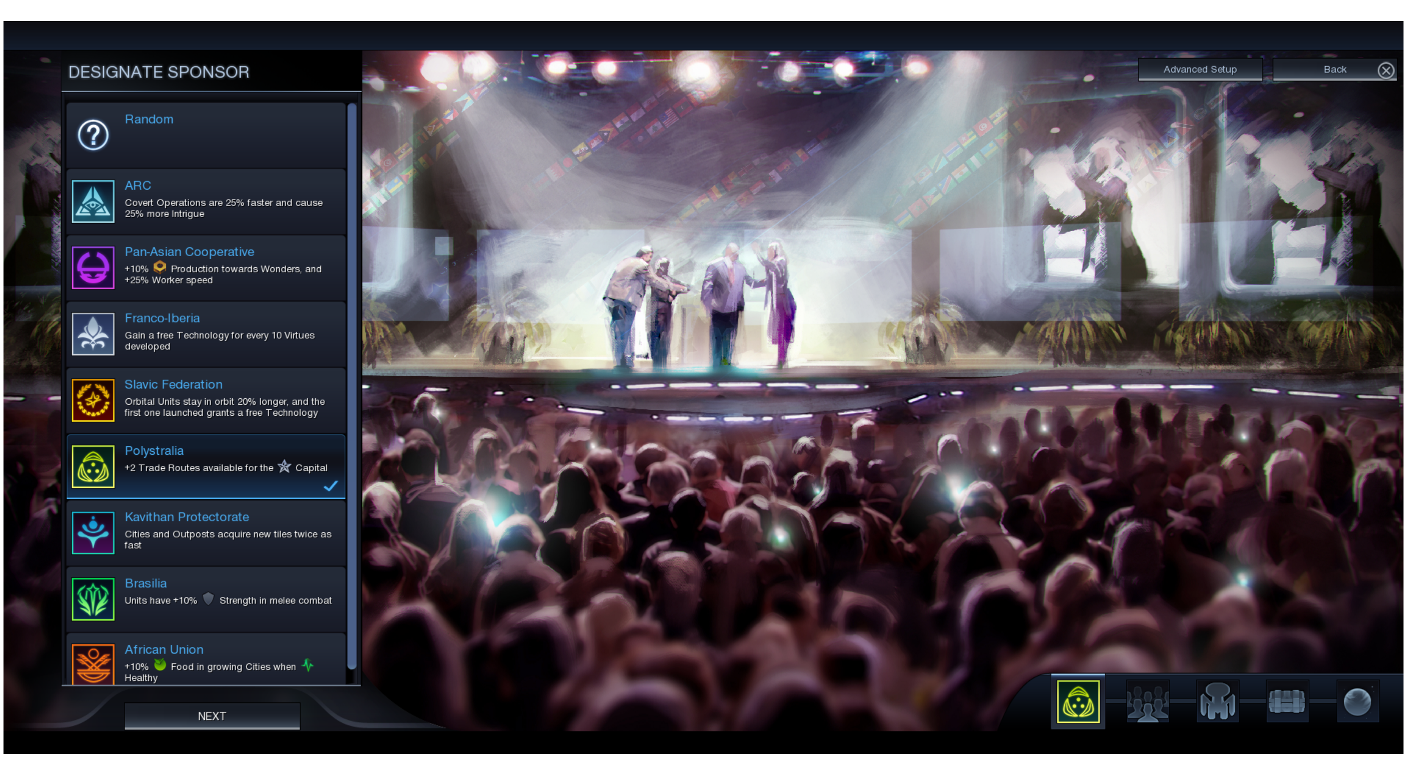
Play Now starts a match with most of the settings that were used for the last game.

The Basic Setup Screen

The basic menu takes you through a series of five choices to customize your nation. The first one is likely to be the most important of all: who are you going to play? Your Sponsor determines your Leader, your Colony's primary bonus, and their city names, colors, etc. All of the Sponsors are good, but their bonuses vary. Find a Sponsor that matches your playstyle to get the best advantage out of it. Covert Operations fans are going to love ARC. Big traders favor Polystralia. Brasilia mows down the field with tough troops.

Sponsors

- **ARC**: Good spying (Flexible)
- **Pan-Asian Cooperative**: Best wonder builders (High Points, High Risk)
- **Franco-Iberia**: Free Technology when they reach cultural milestones (also Flexible)
- **Slavic Federation**: Orbital bonuses (better mid and late game)
- **Polystralia**: Bonus trade routes (Development)
- **Kavithan Protectorate**: Outposts become cities faster (Expansion)
- **Brasilia**: +10% combat strength in melee (Conquest)
- **People's African Union**: +10% Food in growing cities if your nation is healthy (Growth)



Random

ARC
Covert Operations are 25% faster and cause 25% more Intrigue

Pan-Asian Cooperative
+10% Production towards Wonders, and +25% Worker speed

Franco-Iberia
Gain a free Technology for every 10 Virtues developed

Slavic Federation
Orbital Units stay in orbit 20% longer, and the first one launched grants a free Technology

Polystralia
+2 Trade Routes available for the Capital

Kavithan Protectorate
Cities and Outposts acquire new tiles twice as fast

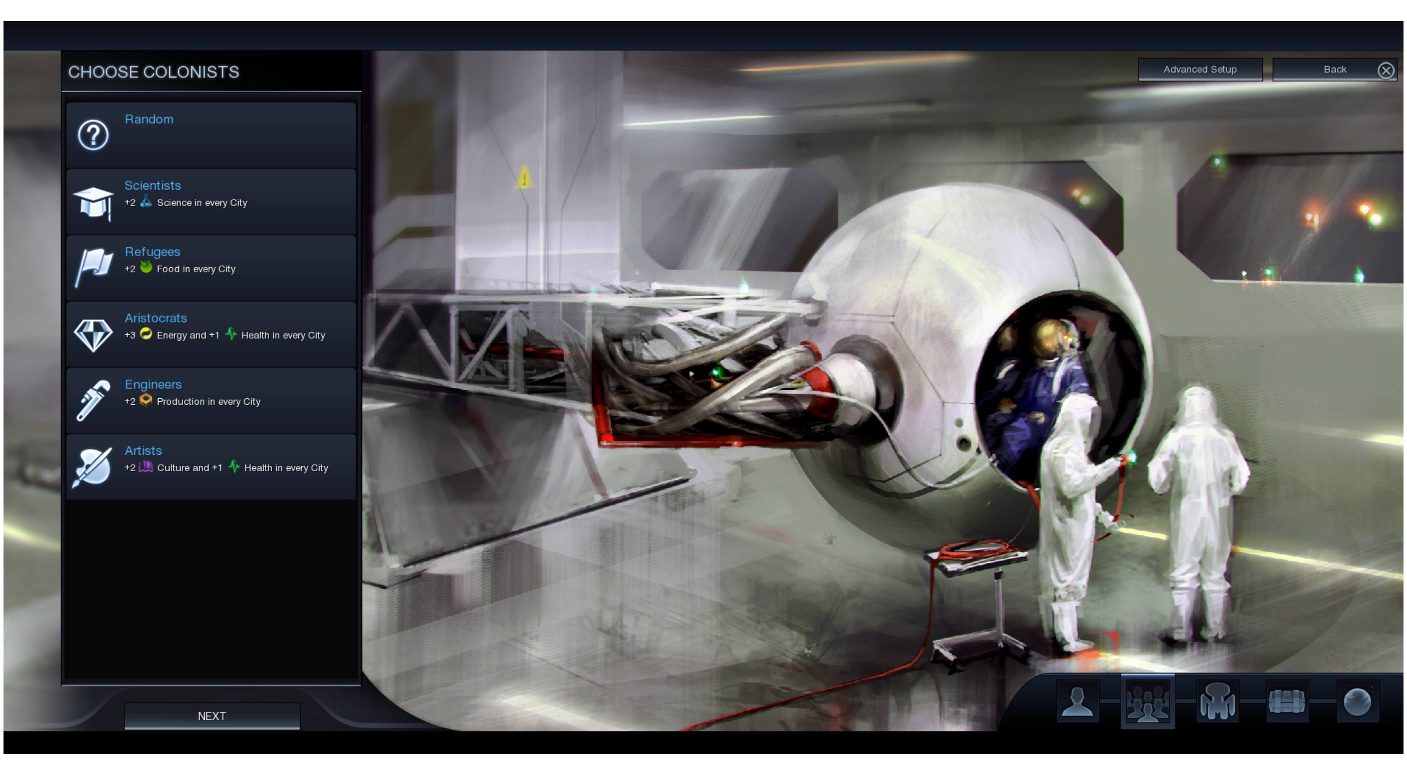
Brasilia
Units have +10% Strength in melee combat

African Union
+10% Food in growing Cities when Healthy

After picking a Sponsor, choose a type of Colonist. Colonists give bonuses to every city. This selection should be based on the intended focus (e.g., fast growth requires Food and good Health, research demands Science).

Colonists

- **Scientists**: +2 Science in every city
- **Refugees**: +2 Food in every city
- **Aristocrats**: +3 Energy and +1 Health in every city
- **Engineers**: +2 Production in every city
- **Artists**: +2 Culture and +1 Health in every city



Random

Scientists
+2 Science in every City

Refugees
+2 Food in every City

Aristocrats
+3 Energy and +1 Health in every City

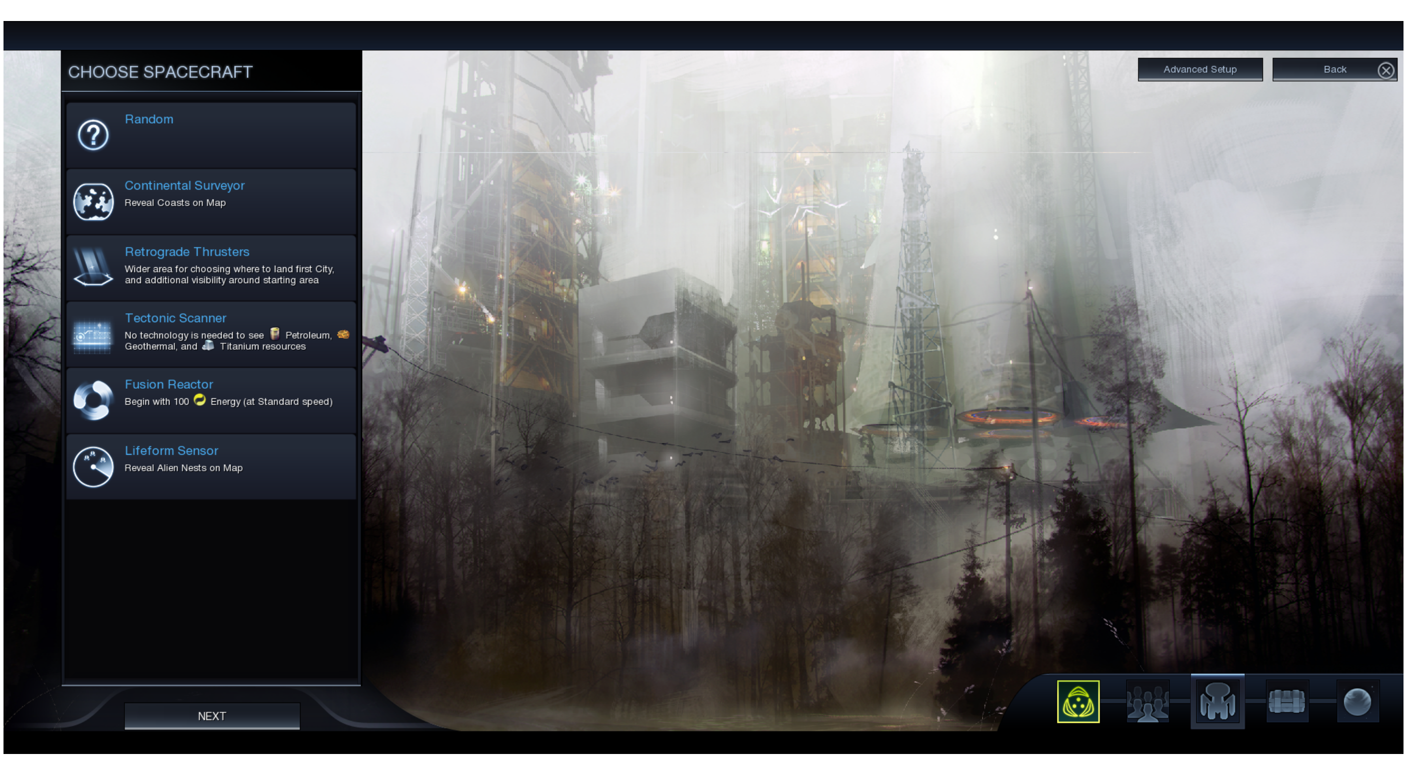
Engineers
+2 Production in every City

Artists
+2 Culture and +1 Health in every City

The Spacecraft Choices are slightly less important but still essential. This is a minor bonus that helps during the early stages of the game. A player who loves to explore, may want the Continental Surveyor to see all the coastlines on the map. Someone who is particular on where they land, and want a wider area to land, would want Retrograde Thrusters. A player intent on gathering resources will want Tectonic Scanner. An Energy hungry player will want Fusion Reactor. And someone who wants to either avoid aliens or befriend them might want Lifeform Sensor.

Spacecraft Choices

- **Continental Surveyor**: Reveal coasts on the map.
- **Retrograde Thrusters**: Extra territory for choosing your first city.
- **Tectonic Scanner**: You see Petroleum, Geothermal, and Titanium resources automatically.
- **Fusion Reactor**: +100 Energy.
- **Lifeform Sensor**: Reveals alien nests.



Random

Continental Surveyor
Reveal Coasts on Map

Retrograde Thrusters
Wider area for choosing where to land first City, and additional visibility around starting area

Tectonic Scanner
No technology is needed to see Petroleum, Geothermal, and Titanium resources

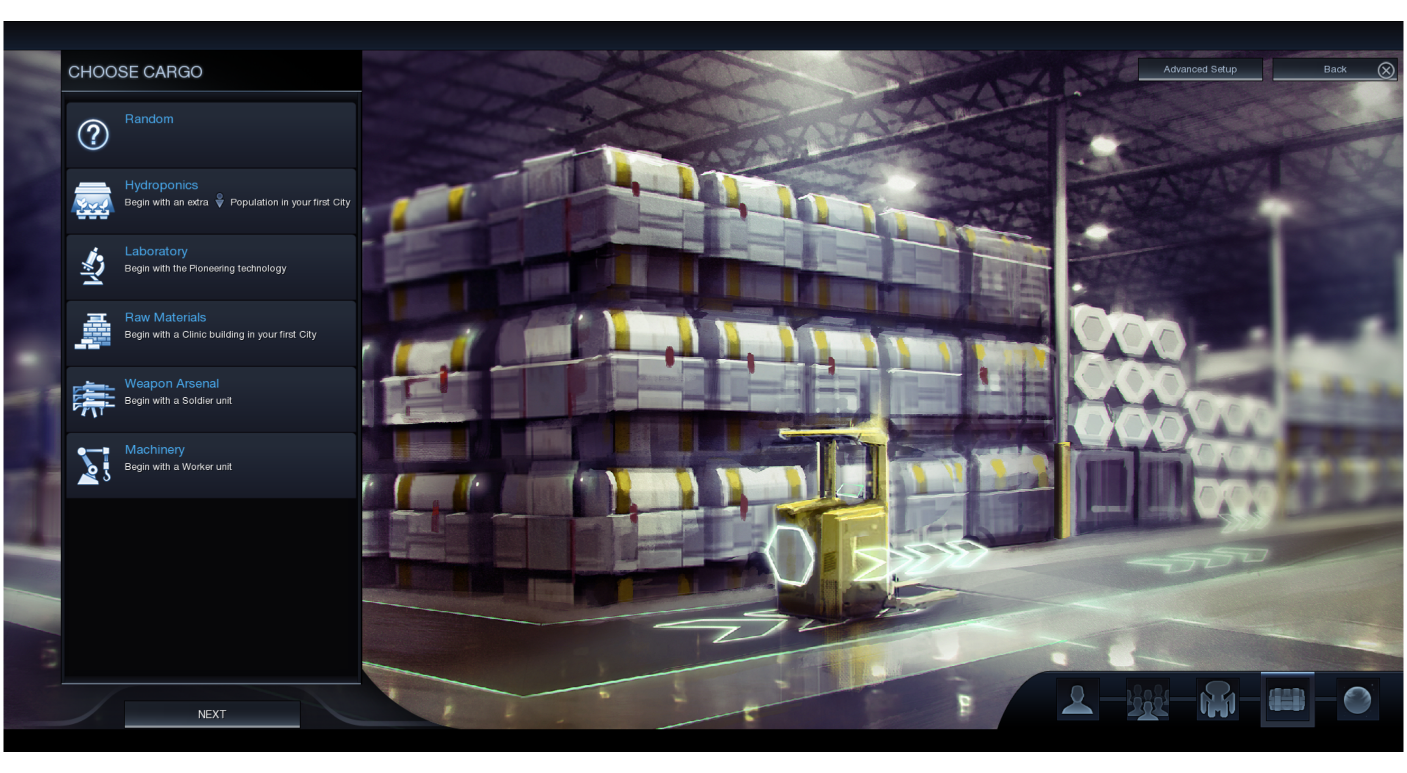
Fusion Reactor
Begin with 100 Energy (at Standard speed)

Lifeform Sensor
Reveal Alien Nests on Map

Cargo is a fun choice. You get a free bonus and all of them are really good. All of these heavily favor an advantage for the early game, so it is best to think about the first focus as a Colony. Hydroponics and Machinery are for players who plan on growth, expansion, and a powerful mid or late game. Weapon Arsenal is a power play for someone who thinks that their early turns can be leveraged into an aggressive advantage against their opponents. Laboratory is for players that want to trade, and settle new cities immediately. And Raw Materials is for players that want to focus on the Health of their Colony.

Cargo Choices

- **Hydroponics**: +1 Population in your first city
- **Laboratory**: Free Pioneering Technology
- **Raw Materials**: Free clinic in your first city
- **Weapon Arsenal**: Free soldier
- **Machinery**: Free worker



Random

Hydroponics
Begin with an extra Population in your first City

Laboratory
Begin with the Pioneering technology

Raw Materials
Begin with a Clinic building in your first City

Weapon Arsenal
Begin with a Soldier unit

Machinery
Begin with a Worker unit

Advanced Game Setup

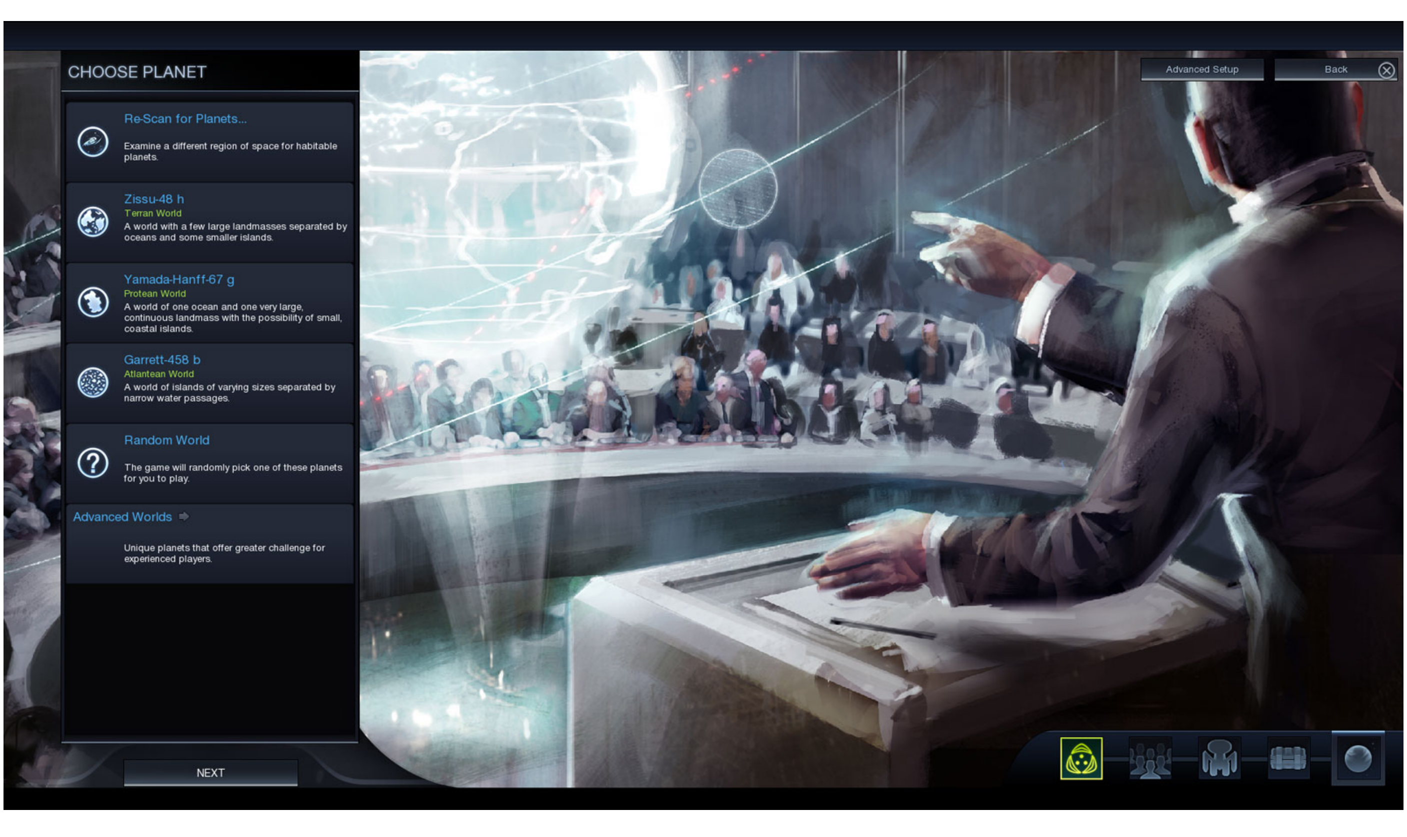
As you set things up, look in the upper-right portion of the screen to find an Advanced Setup button. This hides all of the internal game features that players don't normally mess with. Go there to decide exactly which enemies you want to face, where you want to fight them, and the rules for that match.

You can disable victory types that you don't like as much, alter the world to match your preferred interests, or take out specific civilizations that you're not in the mood to fight. If you enjoy bright, green worlds, use the "Lush" Map Terrain setting..

The advanced game options aren't required to enjoy your game; they're just an extra way to control things for people who know exactly what they want out of *Civilization* games.

Finally, choosing a planet to land on. This is another playstyle choice, it would be wise to pick a planet that best suits the desired gameplay. More islands (Atlantean worlds) slow down early expansion and conquest, as well as warfare. Terran worlds create tiers of competition. There is usually heavy friction on a person's starting continent, but the action slows in the middle as people build up for cross-continental rivalries. A player who likes heavy warfare and conflict might enjoy Protean worlds, as they have few limiting factors to get in the way of conquest.

Advanced worlds (only available with Exoplanets DLC installed) let you try out specific maps that are made with a particular challenge or theme in mind.



Re-Scan for Planets...
Examine a different region of space for habitable planets.

Zissu-48 h
Terran World
A world with a few large landmasses separated by oceans and some smaller islands.

Yamada-Hanff-67 g
Protean World
A world of one ocean and one very large, continuous landmass with the possibility of small, coastal islands.

Garrett-458 b
Atlantean World
A world of islands of varying sizes separated by narrow water passages.

Random World
The game will randomly pick one of these planets for you to play.

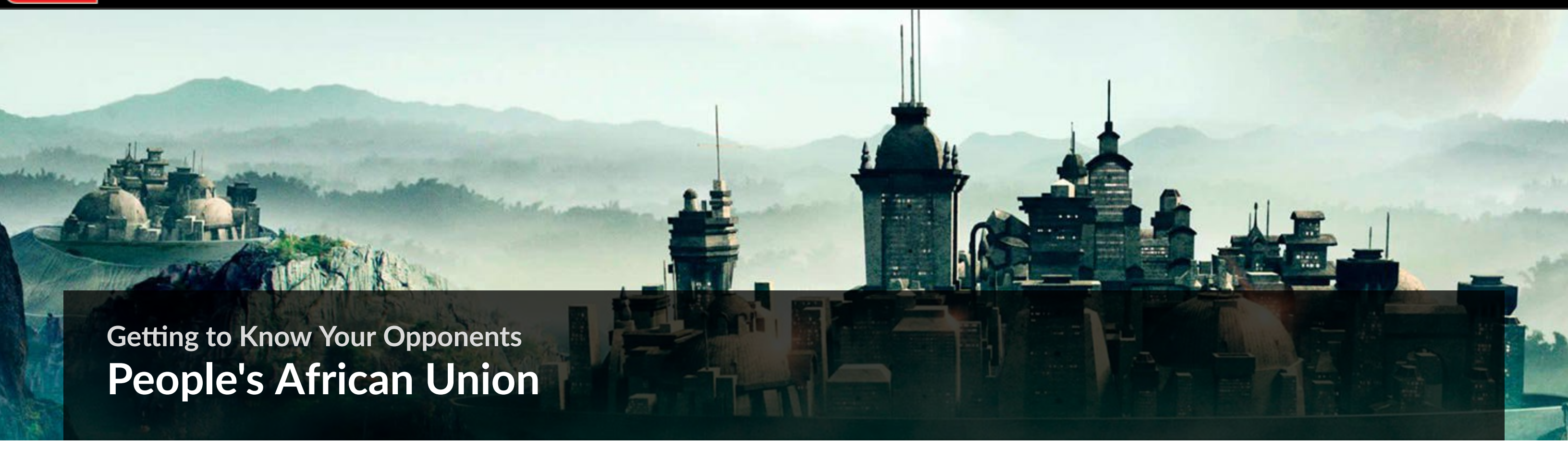
Advanced Worlds
Unique planets that offer greater challenge for experienced players.

With that, you now know everything to set up a great match. Before you begin, though, you should take a deeper look at each of the available sponsors and leaders. Some of this information is fun flavor and backstory, but you should also study the leaders so that you get a feel for how the AI plays them. This helps you to recognize trends, motivations, when they're going to attack you, and so forth.

Getting to Know Your Opponents

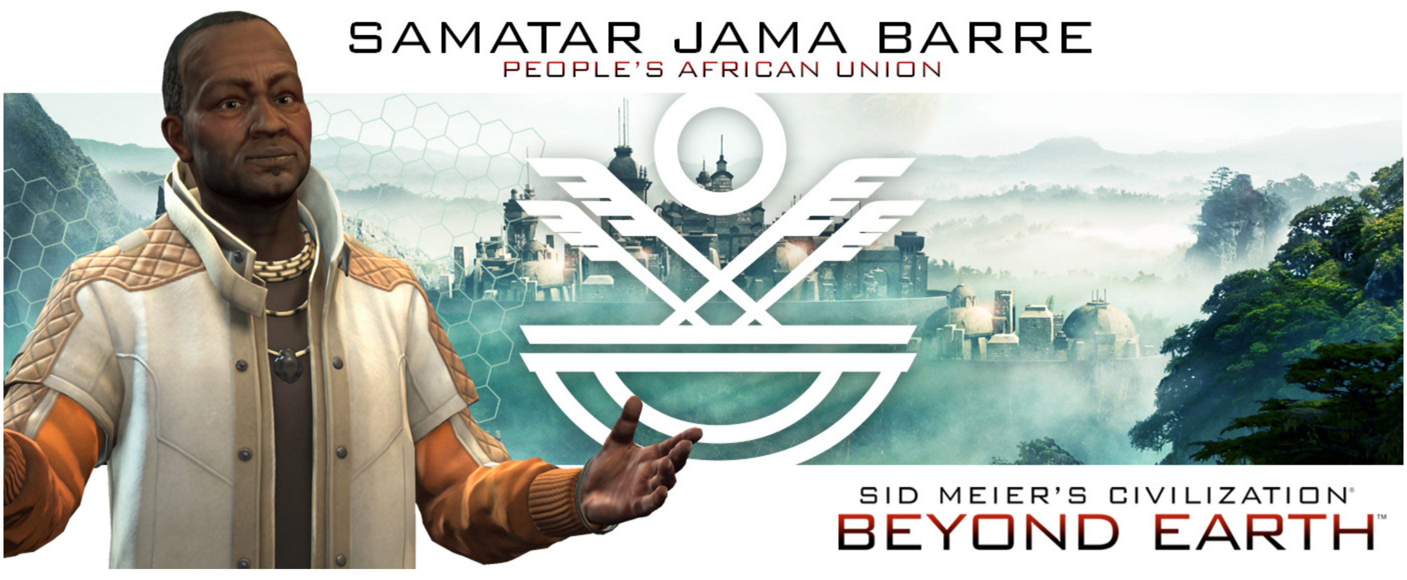
About

There are eight Colonies vying for control of this new world. Learn about the strengths and weaknesses of each so that you know how to outmaneuver all of your foes.



Getting to Know Your Opponents

People's African Union



- **Sponsor benefit**: +10% Food in growing cities when healthy.

The chartering of the People's African Union was the culmination of what has been called the sub-Saharan Renaissance. A new generation of political thinkers and cultural organizers used the chaos of the years following the Great Mistake to build pockets of good governance and stability. Then, they gradually expanded and combined forces, focusing on continental self-reliance, traditional values of communalism, and a newly developed sense of shared destiny. These states were able to create strong stewardship of Africa's ample mineral and biological resources and counter the ecological damage within their borders. The People's African Union was one of the earliest backers of the Seeding, and it has profited greatly by its equatorial positioning in serving as a launch base for many expeditions.

PLAYSTYLE

The People's African Union is a wealthy ally in terms of its size and population. Its leader, Barre, is good at growing a small colony into a large country without wasting too much time. Expect his focus to be on mostly peaceful expansion while developing his cities. He won't like warmongers or alien killers most of the time, and these traits are likely to get you in trouble with him.

If you're playing as the People's African Union, exploit your strong growth potential. A 10% Food bonus is substantial, but you must watch out for unhealthiness in your nation. Too much of that, and your bonus goes away, leaving you in a deficient position compared with your rivals.

Don't expand too quickly! Make sure that your cities grow large and healthy before settling new ones. This ensures that you keep your bonus going and that you have high populations to work with. Prosperity virtues are well suited for this style of play.

SAMATAR JAMA BARRE

- **Strengths**: Diplomacy, Growth, Health
- **Weaknesses**: Production

Barre is a variation on the "wise old chief" archetype. He is likely to be a trustworthy opponent and ally, a character whom players would prefer to favor rather than resist. He is slightly overweight and aging, with an air of benign neglect about his clothing and hygiene. He behaves in a cordial, beatific, possibly na•ve fashion, as he speaks in soft tones, smiles frequently, and shrugs off insults and slights. He doesn't get angry with others as often as other Leaders. Should you stab him in the back, he appears sad and resigned, as if you hadn't grown up the way he had hoped, rather than furious and vengeful. That doesn't make him a pushover, however: he holds the line against his enemies with ruthless efficiency, especially when his people are threatened. Still, he consistently operates with an air of unflappable optimism and good humor.

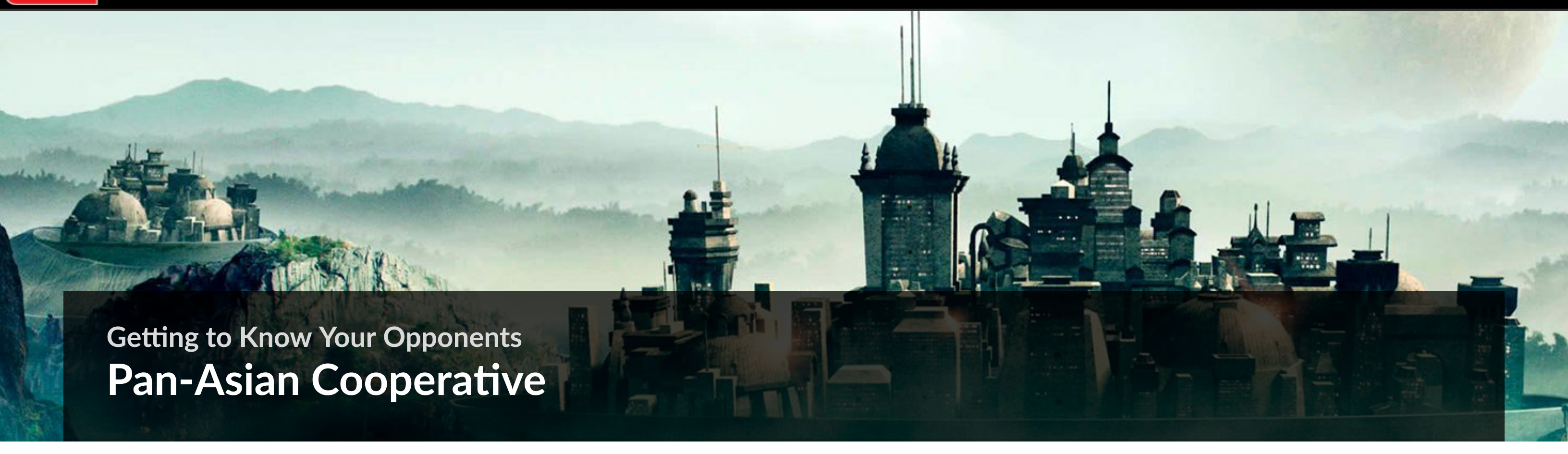
His given name means "doer of good" in Somali; the family name is a line of historical Somali diplomats.

Avuncular, genial, affable, affecting an air of bonhomie, Samatar Jama Barre wished to be addressed as Kubwa Mjomba ("great uncle" in Swahili) by those he both commanded and protected. Despite his seeming benevolence and absent-minded demeanor, he was nonetheless an efficient and effective administrator, an able diplomat, and ruthless when necessary. Barre was amused and likely pleased when detractors likened him to the traditional African village chieftains of the past, claiming him to be a throwback and out of step with the new world in the wake of the Great Mistake. But the People's African Union made a wise choice when he was selected as one of their colony governors.

Rising from the poverty and violence of the inundated streets of Hargeisa, Samatar joined the African Union's resurgent military forces, eventually rising to the rank of Major. For three decades, he served in a variety of increasingly important posts, military and civilian, rising steadily in both ability and influence. He was able to overcome lingering tribal tensions, dealing with the polyglot cultures of Africa with both reverence and common sense. Barre displayed those same diplomatic skills when negotiating with those outside the African Union, and he brought to culmination several international agreements that helped propel the Union's colonization effort before he was selected to command one of those colonies.

Barre proved to be just as efficient against any perceived threat to the well-being and safety of those under his protection. In dealing with nascent warlords, religious fanatics, and local dictators, he either brought about an equitable peace or bludgeoned them into submission. Although never known as a military genius, his troops were extremely loyal to their "great uncle" and fought with abandon for his approval. Samatar Barre never lost a battle, although he took no credit for his victories and viewed them as lamentable necessities.

Though not religious himself, he was tolerant and accepting of others' religious traditions. In the end, it was this tolerance, coupled with his intellect and personality, that would shape the African Union's colony on the new planet.



DAOMING SOCHUA
PAN-ASIAN COOPERATIVE
SID MEIER'S CIVILIZATION
BEYOND EARTH

- **Sponsor benefit**: +10% Production toward wonders and +25% worker speed.

Although badly affected by the Great Mistake and the upheaval that followed, the Pan-Asian Cooperative emerged as a strong transnational entity. Centered on the old People's Republic of China, the Cooperative spans Asia from the Mongolian steppes to the megalopolis of Bangkok, with even former regional rivals South Korea and Japan laying their differences aside to work in the framework of the Pan-Asian Cooperative. It is a powerhouse of industry, home to world-class R&D and high-tech corporations, and boasts a skilled population living in Earth's most populous cities. Although relatively new to spaceflight and space colonization, the Pan-Asian Cooperative has quickly caught up to or passed the old Space Bloc as it embraces the Seeding.

PLAYSTYLE

Daoming Sochua leads the Pan-Asian Cooperative, a group that develops their cities quite well for research and culture. Expect them to keep up well in the science race, with modern military units and good locations to defend.

The downside of Sochua's leadership is that she won't field enough of those nice, modern units. She's not much of a killer, so you're in great shape against her if you can survive the early push into her territory. Don't attack quickly if you're going after the Pan-Asian Cooperative. Instead, lure them into battles outside of their cities and orbital territory. In the open field, they're weak and vulnerable. Beat off this early rush, and then head into the Colony's juicy interior.

Or maybe you're looking to join the Pan-Asian Cooperative? They have a similar playstyle to Egypt on the last *Civilization* release. Gain major points and advantages by securing multiple wonders without as much investment in time or production. This makes it easier to develop good cities and a strong empire. However, it makes you a clear target for both human and AI opponents. Do not neglect your military. It's okay to play things defensively, but don't be a pushover. Your wonders won't mean anything if you lose your cities.

Consider starting off with a free worker. The Pan-Asian Cooperative bonus cuts at least a turn off of most activities that workers need to accomplish. This lets you grab substantial bonuses in your early cities that much sooner.

DAOMING SOCHUA

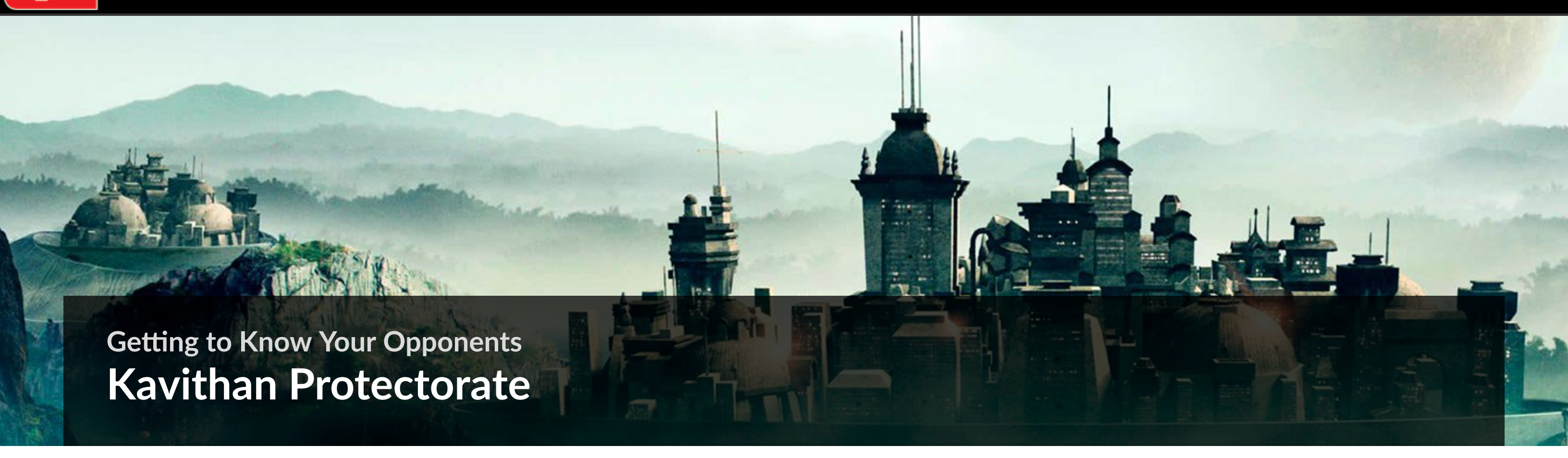
- **Strengths**: Culture, Energy, Science
- **Weaknesses**: Military, Diplomacy

Sochua is a driven, overachieving scientist-engineer who is willing to push ethical boundaries in pursuit of scientific advances. She is particularly proud of her Chinese cultural heritage and encourages the old traditions in everything from dress and housing to diet and manners, albeit adapted to the alien environment of the new planet. This dichotomy is reflected in her dress, for she often wears traditional Chinese clothing topped with an open white lab coat. She is a brilliant woman who is one step short of a "mad scientist," and she made her mark in research on and exploitation of new energy sources. She is relatively youthful[md]in her late 30s[md]but accomplished. She has no close family or confidants, only underlings. Polite but stern and demanding, her dealings with non-Asians range from dismissive to aggressive. She typically keeps her emotions inscrutable and under control but may display them if she thinks she can gain an advantage by doing so. She can be a loyal ally or a fierce adversary, depending on her own agenda.

Born to a Chinese mother and Cambodian father, Daoming Sochua was raised in the traditions of both cultures. She tested at genius levels at a very young age and progressed rapidly through the state-sponsored school systems for gifted children. She quickly surpassed her parents, who were both university professors in the sciences, and her bright siblings in her studies. Entering university in her early teens, she proved focused and motivated to dominate her older peers.

By the age of 30, she held four PhDs in electrical engineering, nano-electronics, nuclear physics, and bubble fusion. Pioneering groundbreaking methods for extracting energy from sources heretofore thought exhausted, as well as deep-sea and off-world resources, Daoming Sochua was presented with numerous international awards before joining the Pan-Asian Cooperative's Bureau of Scientific Revolution. She was specifically recruited by the Cooperative Space Agency for her experience with energy research and unconventional power systems. Daoming was brilliant, driven, and single-minded in her roles, whether as a researcher or administrator.

When she was appointed to head a number of innovative (and perhaps dangerous) projects undertaken by the Cooperative, she revealed a talent for administration. Motivated by the Seeding, she volunteered to head one of the missions to colonize other planets for Pan-Asia. At the time, she was in charge of research studies aimed at overcoming the Inflection Point, knowledge that would serve her in good stead in her new role. Throwing herself into her role as mission leader, Sochua brought her characteristic single-mindedness to decisions on the outfitting and launch of "her" colony, driving her crew and staff unrelentingly. Although not beloved by the colonists on the one-way trip, she was highly respected, which was all that Daoming Sochua expected or demanded.



Getting to Know Your Opponents

Kavithan Protectorate

KAVITHA THAKUR
KAVITHAN PROTECTORATE
SID MEIER'S CIVILIZATION
BEYOND EARTH

- **Sponsor benefit**: Cities and Outposts acquire new tiles twice as fast.

After both the Great Mistake and rising sea levels displaced its population, many commentators were quick to dismiss the Indian Protectorate--to their great loss. Whereas other countries might have been content to wallow in despair, the Indian Protectorate underwent one of the greatest cultural transformations that a civilization has undertaken, becoming culturally dynamic, indomitably optimistic, and cleverly resourceful. With one-sixth of Old Earth's population within its borders, and under the charismatic, enlightened guidance of syncretic religious mystic and prophet Raj Thakur, the Protectorate has launched a space program that is the pride of its people. The program is celebrated in song and movie, with every boy and girl from Punjab to Tamil aspiring to work on "our Prophet's Dream." Now Raj Thakur's only child, Kavitha, has assumed her father's mantle. Work continues on the Prophet's Dream and life on new worlds.

PLAYSTYLE

Kavitha Thakur is the epitome of a peaceful expansionist. She's capable of declaring war, but it's likely that you're only in danger if her borders slam into yours and your treatment of aliens and other Leaders goes against her. Use trade convoys to keep her happy, and you might end up with a loyal friend instead of an enemy whom you can't trust.

If you're playing against Thakur, give her a little time to overexpand. She'll throw cities all over the place, leaving them somewhat exposed. That makes her a valuable target once you have your military geared up and ready to go. Someone else might beat you to the punch, but that can be turned into a victory, as well. You can always let them tire themselves out in the early phases of the war, join Thakur by declaring war against her opponent, and "defend" her territory by claiming the cities that she's lost. You can always eat the rest of her cities later, as she'll be in even worse shape than before due to the first war.

When playing as part of the Kavithan Protectorate, your job is to expand quickly but safely. This isn't as easy as it sounds. Fast expansion is easy with this sponsor, but that leads to low Health and a higher risk of invasion from enemies who are jealous of all your new land. Always defend your colonists and their outposts as well as possible, and augment your city's natural defenses with extra units. Consider trade routes to more martial stations so that you can beef up your military without having to sacrifice extra production time in your cities.

KAVITHA THAKUR

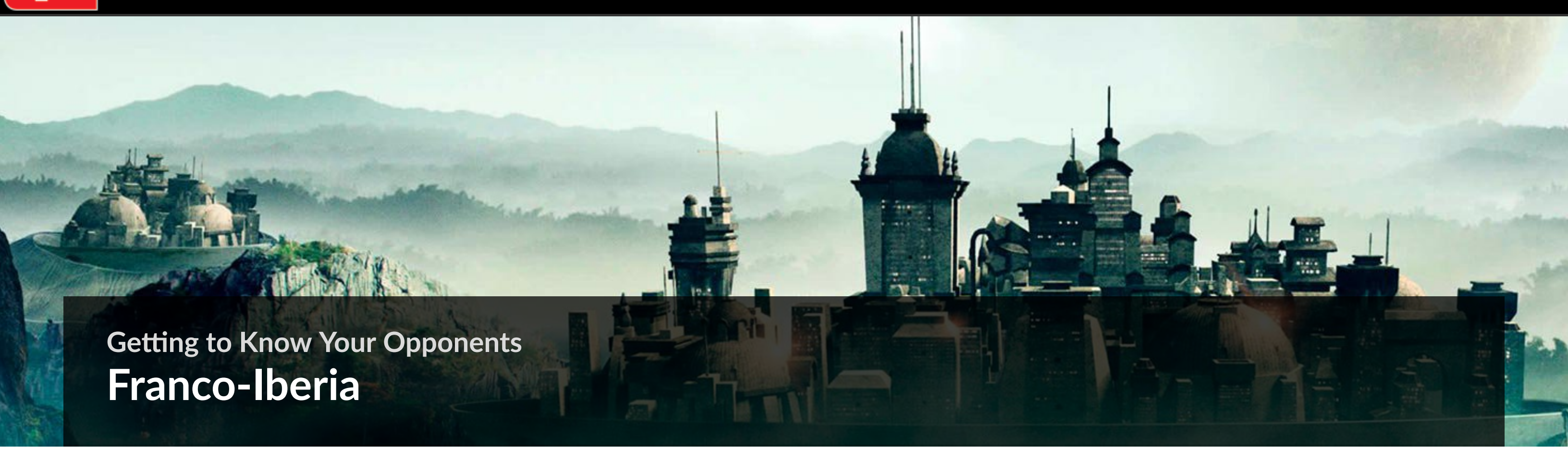
- **Strengths**: Growth, Culture
- **Weaknesses**: Military, Infrastructure, Science

A revered religious icon thrust into a position of both political and military power, Thakur is calm, almost to the point of being detached, as if she exists in two places at once. Although she appears young, she is likely very old; she speaks slowly, carefully considering her words and drawing on decades of memories and experience. Her goal is a peaceful coexistence to heal the wounds endured by the generations following the Great Mistake. Insults and aggressive tones are meaningless to her and fall on deaf ears. Her responses are almost always cordial, thoughtful, and even-handed. However, if driven far enough, she will use the sheer numbers and devotion of her followers to protect those who share a similar ideology.

Although Western scholars are almost uniformly incredulous, the followers of Kavitha Thakur hold fast to the claim that she was born on the first day of June, 17 years before the events of the Great Mistake, making her well over 200 years old. More reliable estimates concede that she may be considerably older than the average life expectancy.

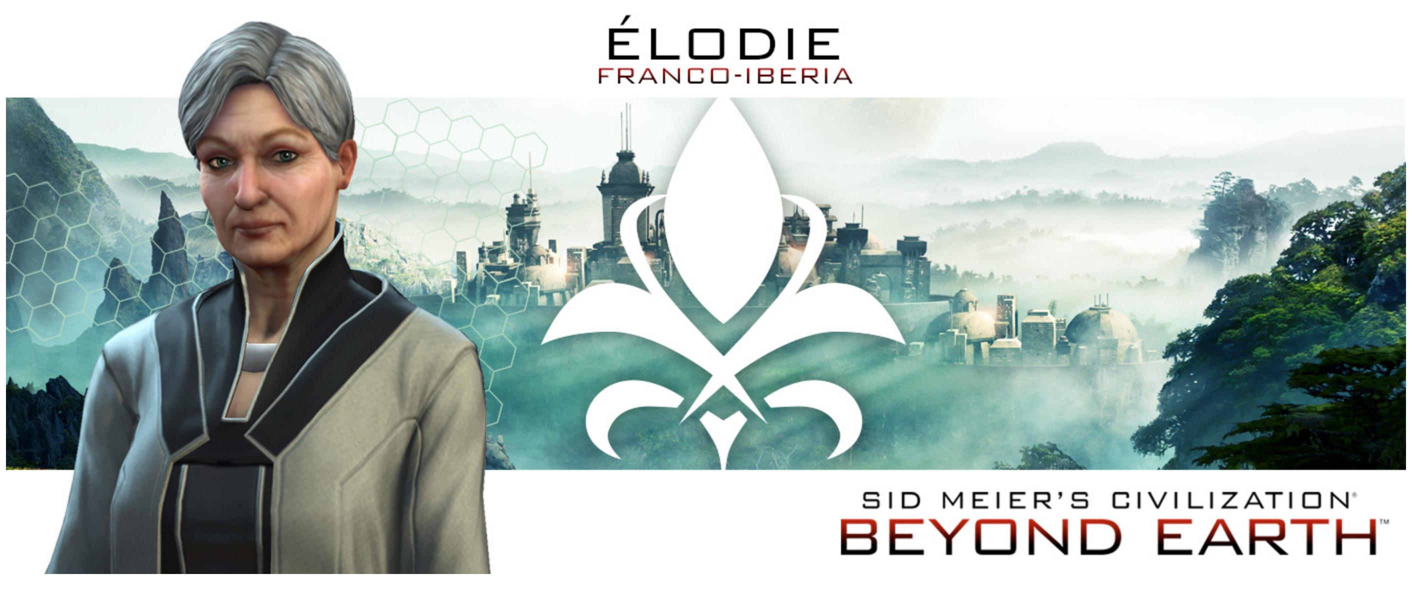
As the daughter of revered northern mystic Raj Thakur, Kavitha had a strong spiritual connection at a young age. She often experienced near-catatonic states of "disembodied concentration," during which she was said to have had visions of the far future. To the devotees of her father, this only served to solidify their belief that she would one day supplant him in his role, as he himself had declared upon her birth.

Nearly 80 years after Raj Thakur's journey to the Kush, Kavitha's followers numbered in the hundreds of millions as the stories of her and her father became legend among desperate and forgotten peoples. Despite a number of political and military candidates tailored for the position, when it came time to elect a leader for the now geographically diverse region under their control, no one saw a means to overcome Kavitha's popularity. Swept up in a nearly uncontested vote and thrust into a position of political authority she neither desired nor prepared for, Kavitha focused her early efforts on what she knew best: humanitarian campaigns. She focused her vast resources on repairing the damage done by her predecessors to the people of the Indian subcontinent.



Getting to Know Your Opponents

Franco-Iberia



- **Sponsor benefit**: Gain a free Technology for every 10 virtues developed.

When the Eurozone collapsed after the Great Mistake, Franco-Iberia emerged to fill the gap the European Union left behind. Now this transnational empire spans much of the area around the Mediterranean, regarding itself as the cultural guardian of the best of Western civilization. Its prosperity made it a beacon for refugees, and its sagacious social policies meant that it continued to grow and develop while other Colonies struggled to regain what they had once held. Now home to many of the great minds of the age, Franco-Iberia views the Seeding as the next logical step in the process of leading the world by example. The Rock of Gibraltar, it is said, is the border of the solar system; Franco-Iberia is ready to continue beyond the end of this Old Earth.

PLAYSTYLE

Who is afraid of dignified, elderly Élodie? Sensible leaders. Sane people. The observant. Élodie may not look like a fierce opponent, but her quiet style of governance is more effective than you might realize at first glance. Her ability to pursue virtues (and get free technology periodically) ensures that she has a flexible nation that reaps many bonuses from any direction she takes. The Franco-Iberian European Union can go in many directions, as the match dictates. Free tech can be chosen from anywhere on the tree that is available, high culture leads to similar flexibility, and Élodie's interest in energy lets her buy whatever she can't build directly.

Don't let Élodie build quickly off on her own. This is a critical way to lose your game, even if you are well on your way to a perfect domination ending. "Ah, she just got her Mind Flower. We're cool for a while." No, you aren't.

Treat the Franco-Iberian European Union with the respect it deserves. They aren't a rampaging force that you must defend against, but they'll have energy to spare, a military of decent standing, and no overt weaknesses. They're a tough nut to crack. Make sure to pressure them long before you think that you need to. Use spies to get information and wealth from them, and then join another nation when they're interested in going after Élodie. Your goal isn't just to get land; it's to knock her down a few pegs before she gets so tough that it's "not worth going after her."

So how do you win with the Franco-Iberian European Union? Patience. Beeline toward research that gets you Culture as quickly as possible. The free techs that you gain are so far apart that they're helpful without being mission-critical. Instead, it's the virtues themselves that are your big draw. Pick a direction that you want, and push hard with your virtues to make it happen. The Franco-Iberian European Union can be a military power, a peaceful expansionist, a researcher, or whatever else you need. That is very nice in a multiplayer game, when enemies won't be sure what to make of you. Use that. Don't be the opponent they're expecting. Switch categories of virtues after you've gotten what you need in the early game, and either heat up your military if your neighbors look soft or become a quiet building powerhouse if everyone else starts fighting things out.

ÉLODIE

- **Strengths**: Culture, Energy
- **Weaknesses**: Health, Science

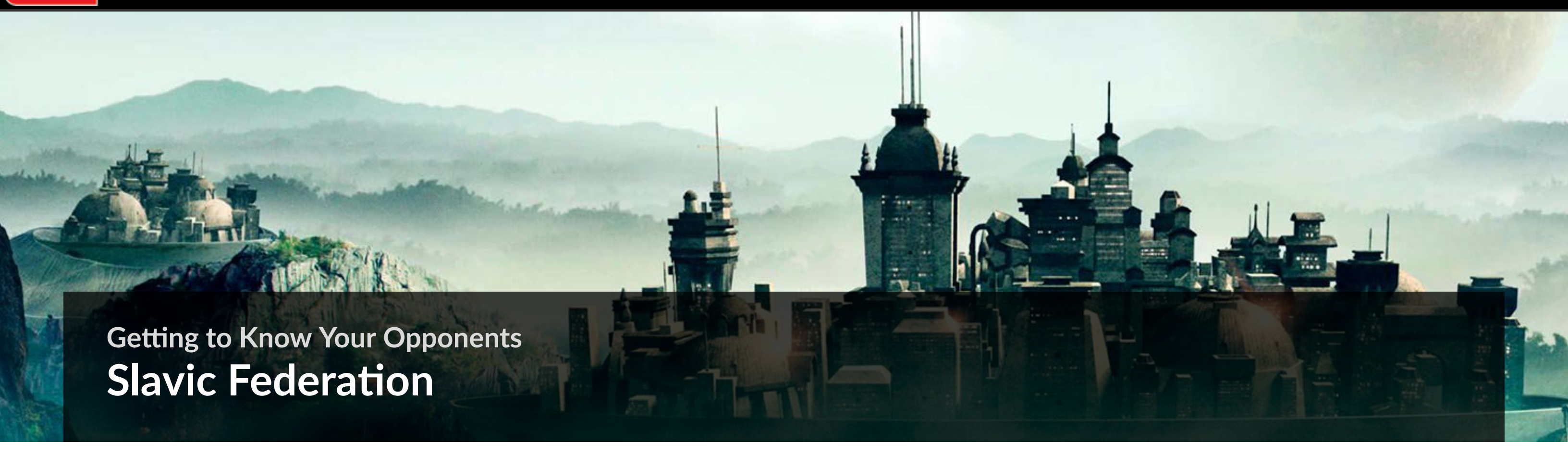
Known only as Élodie, she traces her bloodline to the aristocrats of France and Italy. In her mid-60s, Élodie is elegant, well spoken, and aristocratic; she is polite but reserved when dealing with those she perceives as social inferiors and gracious with her "equals." She is chic and elegant in dress and coiffure, adding her own stylish touches to even the most mundane and pragmatic wear, like a spaceship jumpsuit. However, left to her own tastes, she would tend to favor the latest styles and have an extensive wardrobe, changing her clothes frequently to suit the situation. Élodie is multilingual, with the affectation of dropping words and phrases from the Romance languages into her dialogue no matter which tongue she is speaking. Élodie is slightly flamboyant in her mannerisms and gestures, akin to the nobility of old Europe. Well educated and sophisticated, she also tends to allude to works of great art and literature in her conversation, with the occasional *bon mot*. Velvet with a hint of steel, Élodie strives to be admired, as well as respected, by other leaders[el] but she will settle for feared if necessity dictates.

Long wealthy, Élodie's lineage traces back to the nobility and privileged elite of France and Italy a millennia before the Great Mistake. Her family's prestige and influence was not, however, based on its peerage but rather on the immense fortune it had amassed over the previous two centuries from its holdings in agriculture, food processing, pharmaceuticals, and textiles. Opportunities since the Great Mistake have made it even richer. Its pharmaceutical operations were critical during the "super bug" pandemic after the Great Mistake, and the family farms, orchards, and vineyards in Portugal, France, Sicily, and Greece remained relatively untouched by the fallout, providing ample income from food production.

Born in Europe's foremost fertility and maternity clinic in Braga, Élodie was her parents' only child. Raised in luxury along the Cote d'Azur and Costa del Sol, Élodie became a media darling as a teen, although she was not always portrayed in a flattering light. Reaching maturity, she parlayed that exposure and her experience with the press into a platform for her politics and cultural cachet. Although raised in the Catholic traditions of the New Papacy, Élodie professed to follow no specific religion. She was, however, a staunch monotheist and brought her faith into all her dealings.

Accused by her detractors as an isolationist and a European elitist, Élodie certainly possessed a famously acerbic tongue and quick wit. A strong believer in the value of the Western cultural tradition, she believed that it was up to the educated European elite to guide the masses for their betterment, ensuring the survival of high culture. The best way to do this on Earth was the independence and sustainability of the new Union. More vital, in Élodie's view, was to ensure that Franco-Iberia planted colonies off-world.

When Franco-Iberia announced its plans to launch a "Seeding," Élodie used her considerable influence and family connections to get her name on the short list for command. Using her media savvy, she managed to get the mass media's backing, making her a popular choice among the citizenry of the Union despite her age. Beyond the operational matters (and Élodie had a knack for choosing able lieutenants), she also personally oversaw the construction of the *Canon*, the definitive collection of Western art, letters, and music that became the template for inclusion in the cultural banks of other Seeding projects. Hence, when the colony ship set out, it not only carried people and technology from Franco-Iberia but also some of old Europe's great art works and schematics for duplicating many of Europe's great architectural wonders. Élodie's new colony was designed not only to prosper but also to look good doing so.



Getting to Know Your Opponents

Slavic Federation

VADIM KOZLOV
SLAVIC FEDERATION
SID MEIER'S CIVILIZATION
BEYOND EARTH

- **Sponsor benefit**: Orbital units stay in orbit 20% longer, and the first one launched grants a free Technology.

Polyglot, multiethnic, and spanning Eurasia and Eastern Europe, the new Slavic Federation covers territory beyond what the czars could ever have dreamed. Although rich in resources, much of its land was barely developed until the time of the Seeding, and the Slavic Federation has grown wealthy with providing the materials for many space programs around the world. Politically fractious but united around its signature massive space engineering projects, the Federation sees itself as the keepers of the last true national space program. It continues to rise from the wreckage of the Great Mistake[el] one rocket, one space station, and one starship at a time.

PLAYSTYLE

Vadim Kozlov is a direct man. He'll field a good army, build well-protected cities, and bombard the heck out of anyone who tries to mess with him. He's one of the more likely leaders to go after you if you present any sign of weakness. Keep your borders secure, and settle cities defensively if they're near his land. Use hills and rough or impassable terrain to limit access to your territory.

As with most Colonies, you can buy time or even friendship by trading heavily with Kozlov. Let him direct his energy toward other rivals, and watch for any moment of weakness. Kozlov's best strength is in his great military and defensive cities. If he loses the first of those during a war, be ready to take the latter from him before he recovers.

Should you join the Slavic Federation, be prepared for a life of hard work. You won't be sitting back on your passive bonuses and waiting for an easy victory to come to you. The Slavic Federation gets most of its power from the skies. Grab Technology quickly to ensure that you have access to a leaf tech that has affinity experience that you want. If your explorers find a free orbital, launch it, and then get that affinity tech to have your soldiers become marines much sooner than everyone else. Use that opportunity if it becomes available, and try for an early push against an opponent whom you don't like having on your border.

Later in the game, devote a major city to orbital creation. Pop out good orbitals, and use them to supplement your city's natural resources and defenses. You can afford to be more aggressive than most because the Slavic Federation is so nasty on defense. Having orbitals to protect your troops is a great thing, and your cities won't be defeated easily if you take advantage of that. Let enemies kill themselves in your territory, and then expand back into theirs once their units have been squandered.

VADIM PETROVICH KOZLOV

- **Strengths**: Military, Infrastructure, Orbital Use
- **Weaknesses**: Health

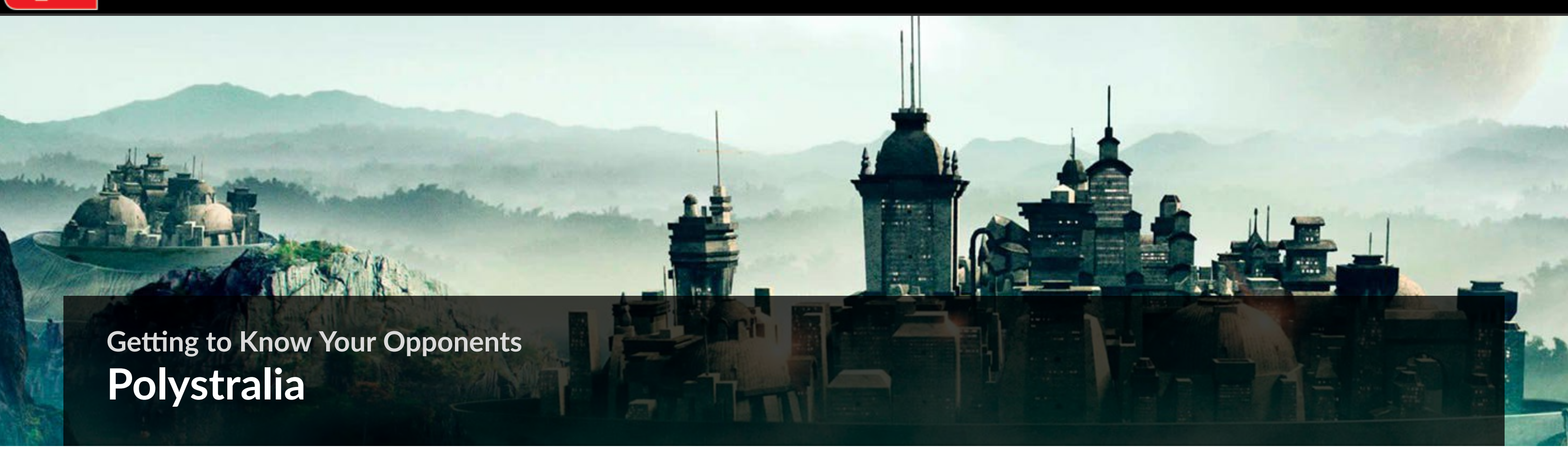
Kozlov is the epitome of the self-made man in the new order: after a childhood in the industrial cities of Poland and Belarus, he rose through the ranks of the Roscosmos program and eventually became known as the "Hero of the Slavs." He is a quiet, stoic, and efficient leader, personifying the authoritarian military that figures so prominently in the government. From his days in space, he is careful, analytical, and direct; he expects those same qualities from everyone. In his early 40s at the time he was selected to head the colony, he was physically fit and mentally sharp. He is a "by the book" career officer with absolute dedication to his command and the Slavic Federation. He is equally comfortable in a spacesuit or uniform but eschews most casual or civilian dress. Save for his insignia of rank and nationality, he wears no personal jewelry or trinkets, not even his wedding band. His gestures are minimal, and he uses his voice as an instrument of command: soft when consulting or giving advice, stentorian when giving orders or angered. Whichever tone he may use, however, people tend to listen.

The most celebrated cosmonaut since Yuri Gagarin, Vadim Kozlov came from a working-class family but rose to heroic stature in the years before the Seeding. The eldest son of parents who labored as itinerant steelworkers and welders, Vadim acquired his limited formal education in industrial cities scattered across the Federation: Krakow, Bydgoszcz, Lublin, Minsk, Vitebsk, Donetsk, and Dnipropetrovsk. Vadim answered the call for construction volunteers issued by Roscosmos, the resurgent Federation space agency. Minimally trained in zero-G construction methods, Kozlov was sent to work on building the second Federation Earth orbit station. He was soon promoted to foreman of his shift due to his aptitude for weightless labor combined with practical experience in heavy construction.

Inducted into the armed forces and immediately given the rank of Colonel, Vadim took advantage of part-time educational programs to gain a comp diploma in aerospace engineering. Over the next decade, he became the public face of the Federation efforts to exploit the vast resources of space. Vadim Kozlov was the first citizen of the Federation to set foot on Mars. For this, he was made a "Hero of the People" and promoted to General in Roscosmos. Six years later, he led the mission to map Sol's asteroid belt in preparation for mining operations; for this success, Kozlov was awarded a second Hero's medal and promoted again.

Incredibly popular among the working class, a devoted family man, and fiercely loyal to the Slavic state that had rewarded his hard work, Kozlov eschewed offers to enter politics or move into the civilian realm. At the age of 35, he was overseeing Roscosmos construction projects on Earth, Mars, and in space. He was not reticent in pitching in personally to do manual labor during inspections of construction sites on Earth, elevating his reputation even more as a self-effacing, self-made, successful servant of the people. Both professionally and personally, Vadim Kozlov appeared content.

Yet Vadim made no effort to disguise his desire to return to space. In his early 40s, when the Slavic colonization effort was launched, Kozlov volunteered to head one of the missions. He was promptly accepted and threw himself into the role of mission commander with the vigor and consummate professionalism for which he was famed. It has been surmised that his beloved wife urged him to volunteer, as she hoped to give their children opportunities on a new world not available in the overcrowded and calcifying Slavic Federation. Whatever the truth of such rumors, in the colony mission, Kozlov was able to combine all the loves of his life: space travel, exploration, engineering, family, and Federation.



Getting to Know Your Opponents

Polystralia

HUTAMA
POLYSTRALIA
SID MEIER'S CIVILIZATION
BEYOND EARTH

- **Sponsor benefit**: +2 Trade Routes available for the Capital.

When they realized that the rising seas were creating a common threat, Australia, the Pacific archipelagos, New Zealand, and the major South Asian Colonies united to form the Commonwealth of the Pacific, better known as Polystralia. Together, these Colonies tried to safeguard and preserve their coasts and the unique biodiversity of the Pacific and South Indian oceans, and they became a world leader in climate engineering. Long a crossroads for trade, Polystralia's economic power stems from its unique relationship with the great oceans. Its port cities bustle with freight cranes and train shipments, as well as new ideas and technologies. Resilient and rich, Polystralia's relatively small Seeding program is one of the best financed and most focused.

PLAYSTYLE

Hutama thought that he would make a bad expedition leader? Bah, nonsense! Hutama is a man with many friends and few enemies. His Colony's focus on trade keeps them out of trouble most of the time, earning them a huge amount of resources in the meanwhile. Expect Polystralia to be a late-game powerhouse if you leave them alone. They have all the tools that they need to explode in the early- to mid-game. They'll have energy to burn, resources galore, and few real problems from neighbors compared with most.

Don't let them get into that position. Use Hutama's weaker military against him. Gobble up his land while it's still soft.

If you're playing as Polystralia, it's time to earn! Use trade routes as a dynamic way to shore up any weaknesses in your nation. Settling a new city? Use internal trade routes to get it up to speed at a blinding rate with free food and production. Nothing new to develop in terms of cities? Trade with other Colonies to keep the peace, bring in Energy, and earn free Science, as well.

Polystralia can be incredibly flexible under the proper leadership.

HUTAMA

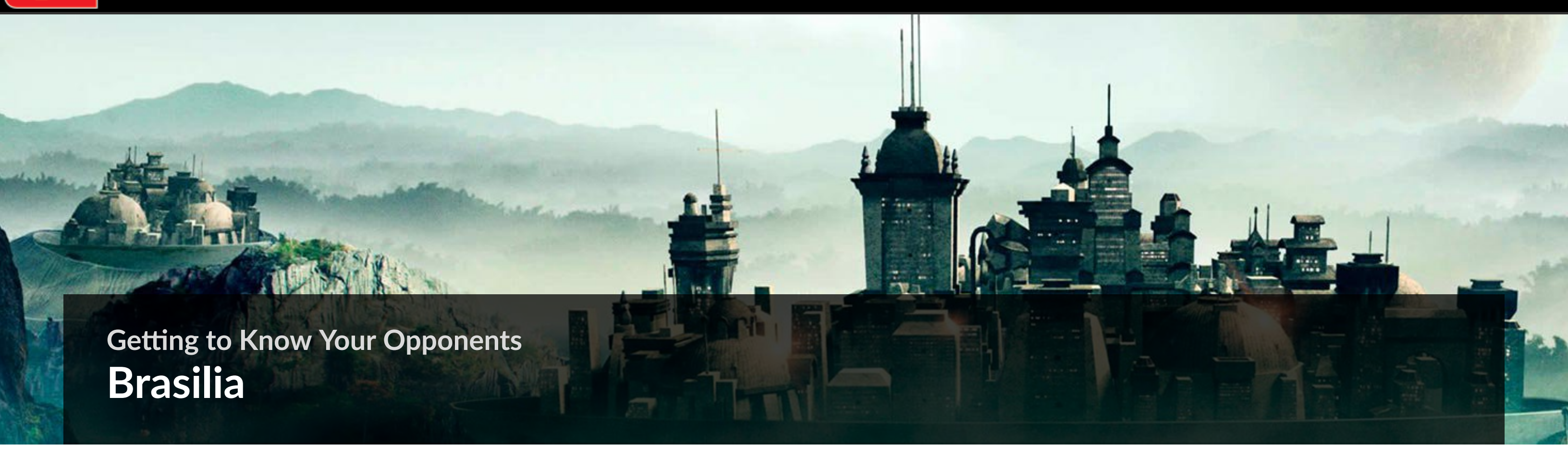
- **Strengths**: Diplomacy, Energy, Health
- **Weaknesses**: Production, Expansion

Hutama first came into public notice as a 20-year-old college student at the Universitas Sumatera Utara in Medan, Indonesia, heading a grass-roots movement protesting differential resources assigned to reclamation projects across the Commonwealth. Ubiquitous on social networks and media broadcasts, Hutama's cheerful face, trilingualism, and informal quips endeared him to audiences across the Commonwealth. From Perth to Vanuatu, Hutama was instantly recognizable, parlaying this into a career in politics. He is urbane and polished, a natural diplomat with a flair for the dramatic. Empathy, humility, humor, and respect are all virtues that define Hutama in his interactions with others, and his considerate tone and linguistic training makes him an ideal diplomat and proxy for his people. Although he is calm by nature and his primary concerns are the health and well-being of the colonists, he is a pragmatist and will use force when warranted in his view. He is also a savvy economist and has even mastered the intricacies of modern warfare and trade as diplomatic tools.

Elected to the Commonwealth Parliament before his 30th birthday as a junior member of the opposition, he famously launched the Platypus Inquiry, which ended up splitting the majority of the coalition. The old government was toppled and a new government was ushered in, with Hutama as Interior Minister. Once in high office, he continued his work against corruption, crony contracts, and waste, all while retaining his famous irreverent, informal sense of humor. His weekly Internet broadcast "Question, Minister" mixed populism, no small amount of flashy production, and occasionally serious politics. Hutama is credited with delivering the popular vote needed on a referendum on funding Polystralia's merchant fleet, on being an early backer of the Tahiti2 Island Project, and on providing universal access to fresh water.

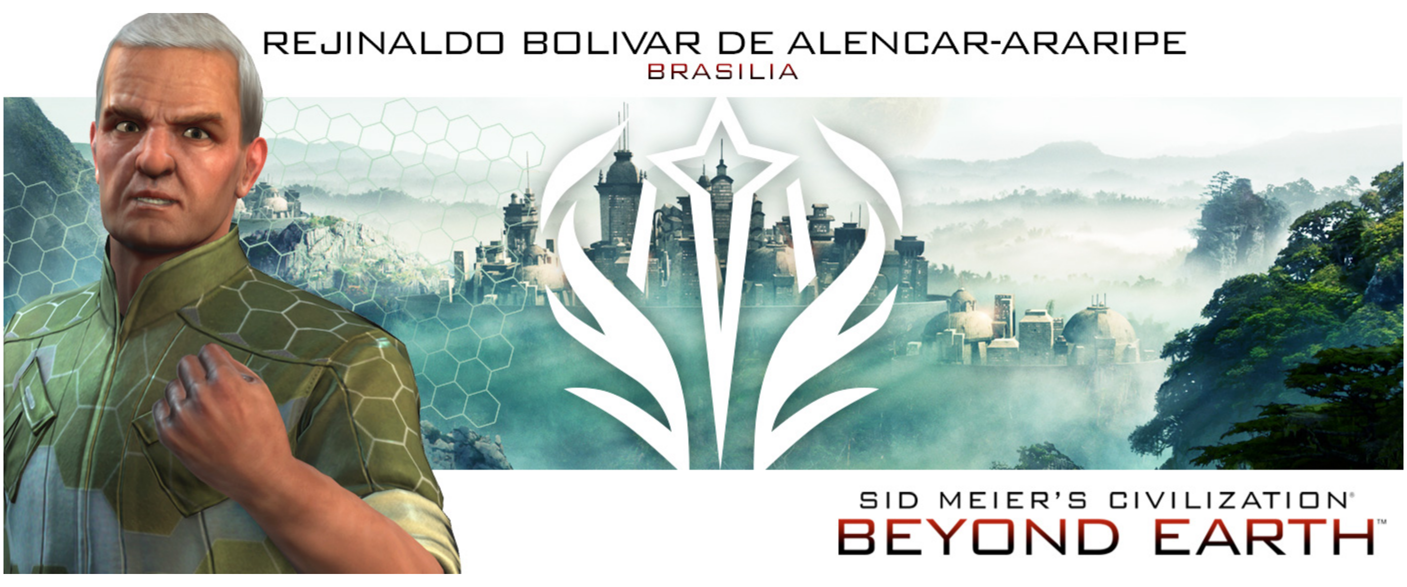
Hutama's "spread the wealth" populist politics were key to his success, but it would be wrong to assume that these were cynical ploys. His sharpest criticisms were always reserved to people exploiting the public well-being, and his own personal charities were devoted to alleviating suffering throughout the Commonwealth. Gadfly though he might be on the screen, this was motivated by a strong sense of public justice.

Notably, Hutama seems to have misread public attitudes about the Seeding. After publicly calling into question the Commission Report on the Inflection Point, he resisted Polystralia's efforts to strengthen its space program and start Seeding construction. After a series of sharp political defeats (and a decline in his weekly show ratings), Hutama reversed his position, although his support carried something of a satirical edge. But when the time came to nominate leaders, Hutama's loyalists across the Commonwealth put his name forward[md]even after Hutama devoted an entire program to reasons why he would be a bad expedition leader.



Getting to Know Your Opponents

Brasilia



- **Sponsor benefit**: Units have +10% Strength in melee combat.

Its development checked briefly by the Great Mistake, Brasilia roared back as the preeminent South American economic entity and a world-class military power. Brasilia's military was the backbone of many peacekeeping forces deployed to restore order, and the nation was able to establish itself as a major trading partner with the rest of the world. With the wealth of the Andean highlands and the Amazon acting as a highway to the continent's interior, Brasilia experienced tremendous growth and development as order returned to the world. An early adopter of the Inflection Point theory, Brasilia's aerospace industry and veteran air forces allowed them to launch the very first Seeding expedition.

PLAYSTYLE

One look at Rejinaldo de Alencar-Araripe tells you that you're dealing with a lifetime soldier. Don't mistake him for a total warmonger: this isn't Earth, and its leaders don't always have Earth's sensibilities (or lack thereof). It's often quite possible to negotiate with de Alencar-Araripe and avoid conflict, but you won't want a small military or a vulnerable border to be involved in the discussion. Keep your military deployed near de Alencar-Araripe's border to discourage any ventures into your land. His people have a modest bonus in direct combat. It's not enough to win a war by itself, but he'll have enough troops to exploit that advantage unless you're a good defensive fighter.

Playing as Brasilia is quite fun if you're a direct domination player. Though you can take any of the other Sponsors into battle, Brasilia is the best choice out of the bunch. Their melee bonus makes it easier to take and hold cities, fend off enemies in rough terrain, and win wars with fewer casualties. This leads to an upward spiral because your units start off better than their rivals, survive more often, gain more levels, and become even more lethal in the next war.

Take Might virtues to get an even greater leg up on your opponents. Faster levels and quick training help you put a great army out in the field, and the bonuses against aliens gives you something to attack in the early game if there aren't any rival Colonies nearby. You want to have multiple units up to Level III by the time any serious threat gets close enough to conquer.

REJINALDO LEONARDO PEDRO BOLIVAR DE ALENCAR-ARARIPE

- **Strengths**: Health, Military, Production
- **Weaknesses**: Diplomacy, Growth

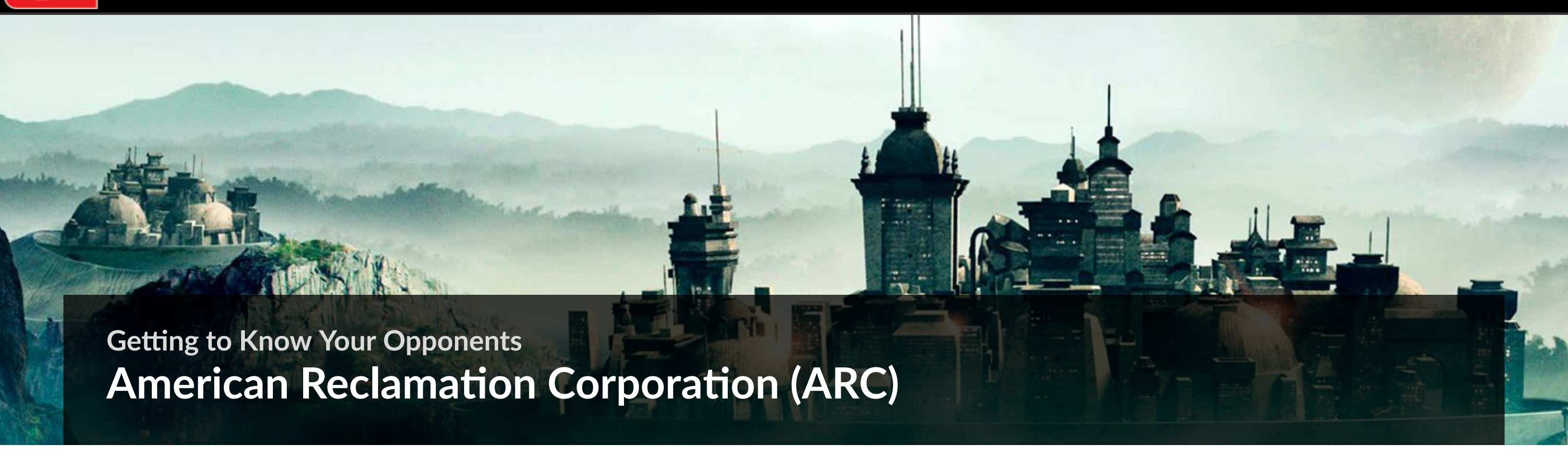
Contrary to expectations, de Alencar-Araripe appears considerate, understanding, and unassuming in dealing with both his own people and outsiders. Usually dressed in a simple military uniform devoid of medals or rank, he eschews most of the trappings of leadership, reflecting his humble beginnings and rise through the enlisted ranks. He is slightly built, perhaps wiry, reflecting the malnutrition and illnesses of his childhood. In his early 70s, he may be elderly, but he is still fit and far from feeble. He carries himself with military bearing, ramrod straight and with precise movements, although he has the habit of punctuating his dialogue with flamboyant gestures. His use of language is equally precise and careful, and he is erudite if not verbose. De Alencar-Araripe is always busy, insisting on overseeing the work of his colonial officers and officials, and he appears distracted when speaking with others. He also tends to be pessimistic, assuredly because of his life experiences.

Said to be the finest soldier ever produced by the Western hemisphere, Rejinaldo Leonardo Pedro Bolivar de Alencar-Araripe began his celebrated career at the age of 16 by enlisting in Brasilia's Corpo de Fuzileiros Navais, lying about his age in the finest military tradition. His first assignment as a Marine was in support of a Security Council operation in northern Myanmar, where he saved his platoon, called in air support, and coordinated evacuation after their transport was shot down. His ascent after that was meteoric, rising quickly to Sargento and then attending the prestigious Academia Militar das Agulhas Negras to become an officer. Commissioned as an Aspiriante at the outbreak of the Peshawar Crisis, he was part of a continent hastily sent to Asia to help quell the crisis and deliver humanitarian supplies. Again, his heroism was proven at the Battle of Route Blue, as he stepped into command after the first, second, and third commanders of the forces protecting the refugee camp were killed in battle.

A complete listing of his military accomplishments would exceed the scope of this article, but there were few battlefield commanders held in as high regard as de Alencar-Araripe. Resisting staff duty until it became impossible to do so and still serve his nation, de Alencar-Araripe has been in no less than nine combat tours, seven of them as a commander on the front lines. His talent for planning and improvisation with limited resources are legendary, and, when not serving in combat, he has been a fixture at Agulhas Negras, training the next generation of military minds.

Somehow, in this illustrious military career, he has found time to write the seminal volume of military sciences in the post-Mistake world: the three-volume *Principles of Modern Warfare* and the slimmer *On the Training and Conduct of Soldiers* (for enlisted soldiers and military cadets). As proponents of special forces, total victory, aerospatial power projection, and professional NCOs, these volumes have served as the blueprint for infantry doctrine around the world, their pithy maxims backed up by examples from history and de Alencar-Araripe's own career. From anyone else, these books would be grandiose; in de Alencar-Araripe's case, they are statement of fact.

A national hero for Brasilia, his name came quickly to the top of the list for commanders of the first Seeding projects. Despite a career "in the mud," de Alencar-Araripe was endorsed by the Brasilian Air Force and the Space Department. Never one to decline a chance to serve his country, de Alencar-Araripe honed the first Seeding to leave Earth's orbit into the professional, dedicated force that was the hallmark of his military career.



Getting to Know Your Opponents

American Reclamation Corporation (ARC)

SUZANNE MARJORIE FIELDING
ARC
SID MEIER'S CIVILIZATION
BEYOND EARTH

- **Sponsor benefit**: Covert operations are 25% faster and cause 25% more Intrigue.

The third largest economy in the world is the American Reclamation Corporation (ARC), Old Earth's first and most powerful megacorporation. Beginning as a geo-engineering firm specializing in environmental risk mitigation, ARC is credited with designing and carrying out the recovery plan that saved North America from dissolving after the Great Mistake. Although rumors abound about ARC's methods and corporate shenanigans, there is no doubt that it has become a power unto itself, receiving grudging respect even from those who denounce it. Now ARC is involved in almost every Colony's Seeding project and recovery plan. From crop science to tidal power generation to security contracting, ARC has a project or product for every problem. Unique among Seeding projects in that ARC's colonial ventures are entirely private, many other Seeding programs rely on ARC financing and products.

PLAYSTYLE

Suzanne Fielding is one of the most ruthless leaders in the game; she'll sell you out in a moment's notice, even if you've been friends in the past. Her capable spies add the potential for dangerous intrigue, and her amoral play means that she's a tricky neighbor to have. One of her biggest weaknesses that she has is that she doesn't keep any friends for long. She'll sometimes goad someone into joining her for a war, but just as often, she's the one getting attacked. For an easier time dealing with ARC, play nicely as long as you safely can, and join in whenever anyone else wants to pound them. With this tactic, you get closer ties with the other attacker, and ARC must fight a two-front war.

Playing as ARC is much more fun than fighting against them. This sponsor begs to be used for constant dirty tricks. Their bonuses are quite synergistic because you get to launch more covert operations and then have them cause even more Intrigue on top of that. It's easy to get money, science, techs, or units from your agents' hard work. In the later game, even Colonies that can't attack directly can be laid low by top-tier spies. Stealing a domination opportunity by launching a Coup on someone's capital: priceless.

SUZANNE MARJORIE FIELDING

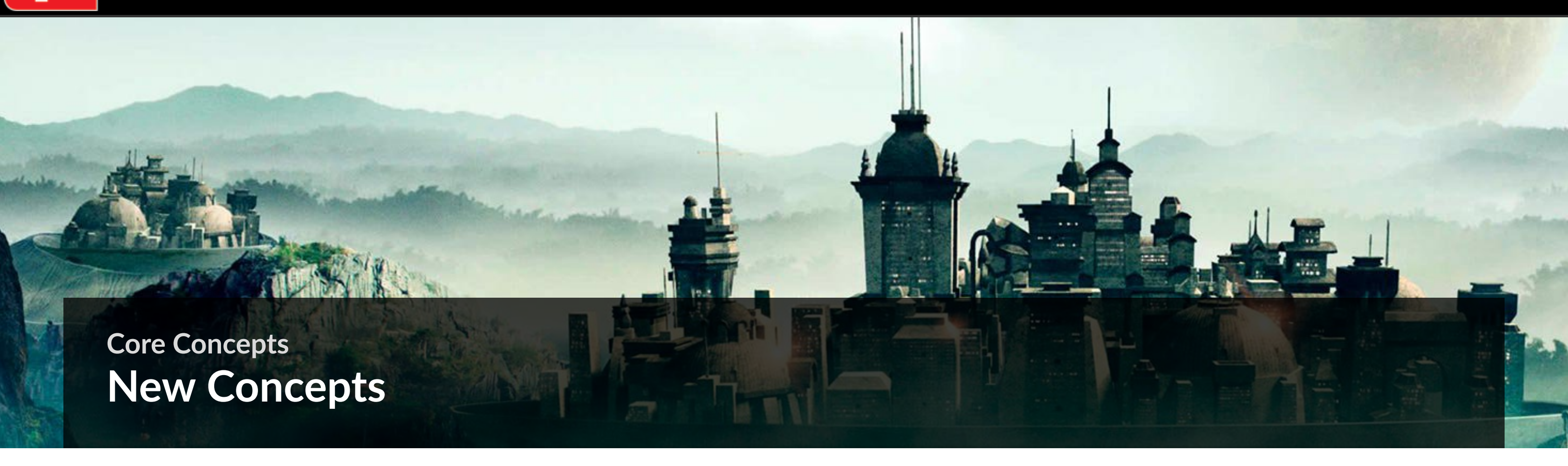
- **Strengths**: Science, Infrastructure, Spying
- **Weaknesses**: Culture, Diplomacy

Egotistical? Paranoid? Cunning? Disingenuous? Suzanne Fielding has been characterized as each by historians, and ascribed many other personality traits, as well. Whatever the fact, she is an intense, driven woman who operates in total accord with her beliefs in conservatism, material progress, and economic realism. She is well dressed and groomed in the corporate mode, with an obvious commitment to impressing with her professional appearance and demeanor. While charismatic, her affability seems calculated to gain an advantage in business and political dealings. However, when thwarted, she can quickly shift to hostility and threats. Overall, whatever the circumstances, she strives to present the appearance that all is "going according to plan"[el] hers, of course. She rarely raises her voice's volume, either in excitement or anger, and strives to appear in control at all times. If she does speak loudly or with excitement, be assured that it is calculated, used as a tool as she does all other affectations.

Suzanne Fielding was the eldest of three siblings, all daughters, born on the Texas Gulf Coast to a Mexican-born mother and an African-American father. Her father was the owner of three hardware stores in the region, and Suzanne joined her father in running the business as a teenager. Accepting a scholarship to Louisiana State University, she graduated with honors and a double major in economics and accounting. Driven by a desire to help reclaim coastal lands lost to the rising sea level in her home states, she was hired by the relatively new American Reclamation Corporation (ARC) to an entry-level position. Both meticulous and daring, and surprisingly adept at corporate politics, Fielding rose steadily through the ARC Accounting Division until, within 15 years, she was heading several operations simultaneously as Operations Manager.

When ARC CEO Michael Modersky signed the Trans-Mississippi Recovery Initiative, he personally asked Fielding to oversee the governmental resource coordination, to which she turned her considerable acumen. It was Fielding who caught the accounting chicanery that led to the FBI's Operation Riverboat and subsequent political fallout. Guiding the government to continue funding during the roiling controversy that followed, Fielding also kept the Initiative on track and on time, such that when Modersky stepped down as CEO, Fielding (who had since been elevated to CFO) was the logical choice for CEO. Sidestepping the Board of Directors, Fielding's appeal to the shareholders enabled her to hold both the CEO and CFO positions for ARC, making her the most powerful woman in the most powerful corporation in the world.

With Fielding at the helm, ARC turned from retail and manufacturing to financial and other services. Fielding used the balance sheet and financial weight of ARC as a massive lever, engineering a series of shifts on Old Wall Street to unseat banks and exchanges. As ARC's capital reserves blossomed, many wondered what Fielding would do next. Few expected that she would announce ARC pursuing its own private Seeding venture, drawing on its vast engineering and manufacturing resources and gaining a waiver from the government to conduct private space operations. The biggest surprise was when Fielding announced she would personally lead the first such expedition. With enough money to buy the world, the woman who led ARC found more meaning in starting over with a new planet.



Core Concepts

New Concepts

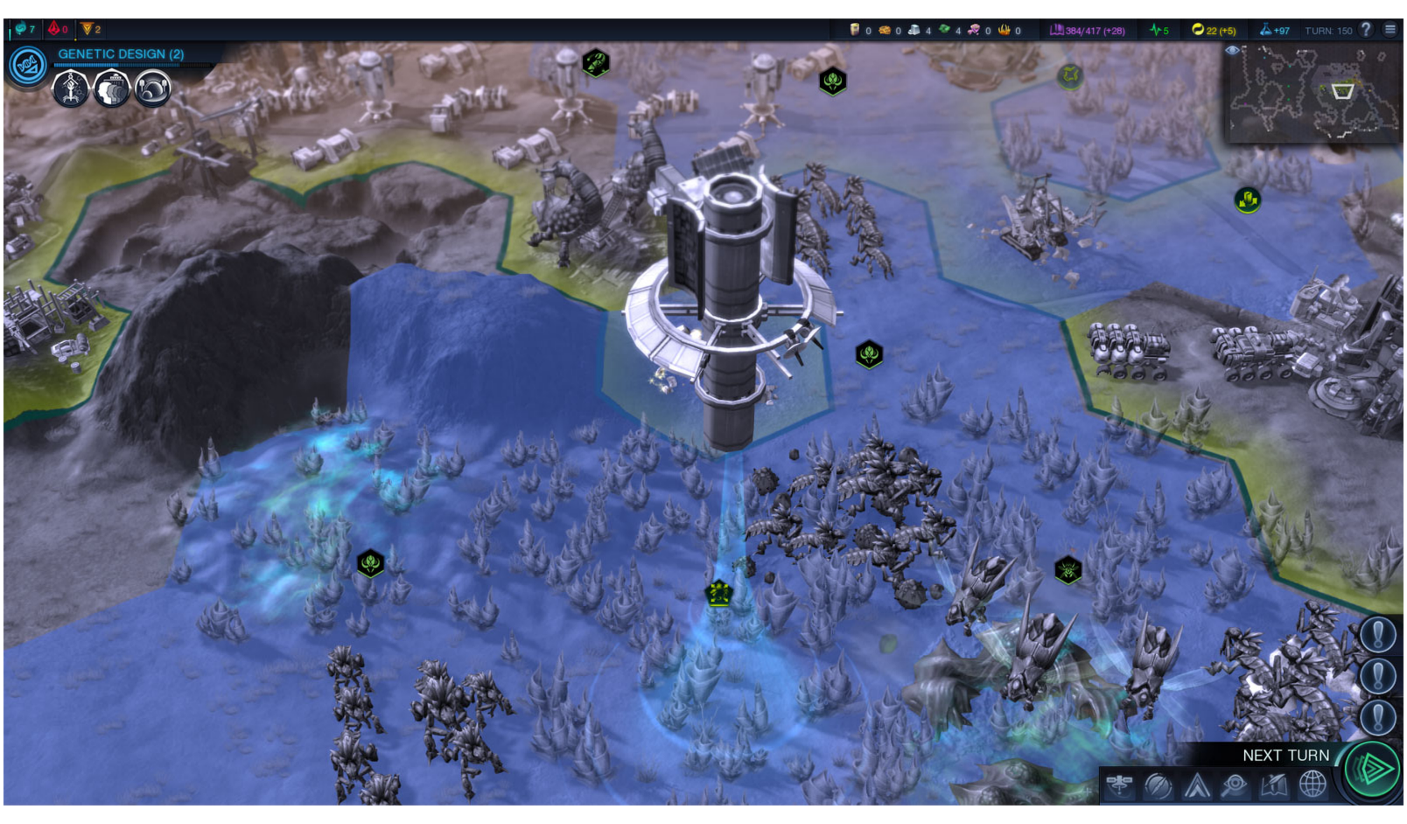
This chapter explains new game concepts, ones that are similar to older *Civilization* games, and then the few that are primarily unchanged. Some of these elements are large enough to warrant their own chapters, and you'll find out where to go to learn more about them. Others are vital but can be explained quickly enough that they're kept here for easy reference.

ORBITALS

Orbitals are non-mobile units that are deployed from the cities that construct them. Each city has its own Orbital Coverage, and that determines how far away from that location you can deploy the satellite. The more coverage your nation has, the more capable it becomes in using orbitals for a variety of tasks.

Orbitals can remove or create miasma, enhance the various yields of tiles, grant defensive bonuses to your units, attack enemies, or give cities various direct benefits.

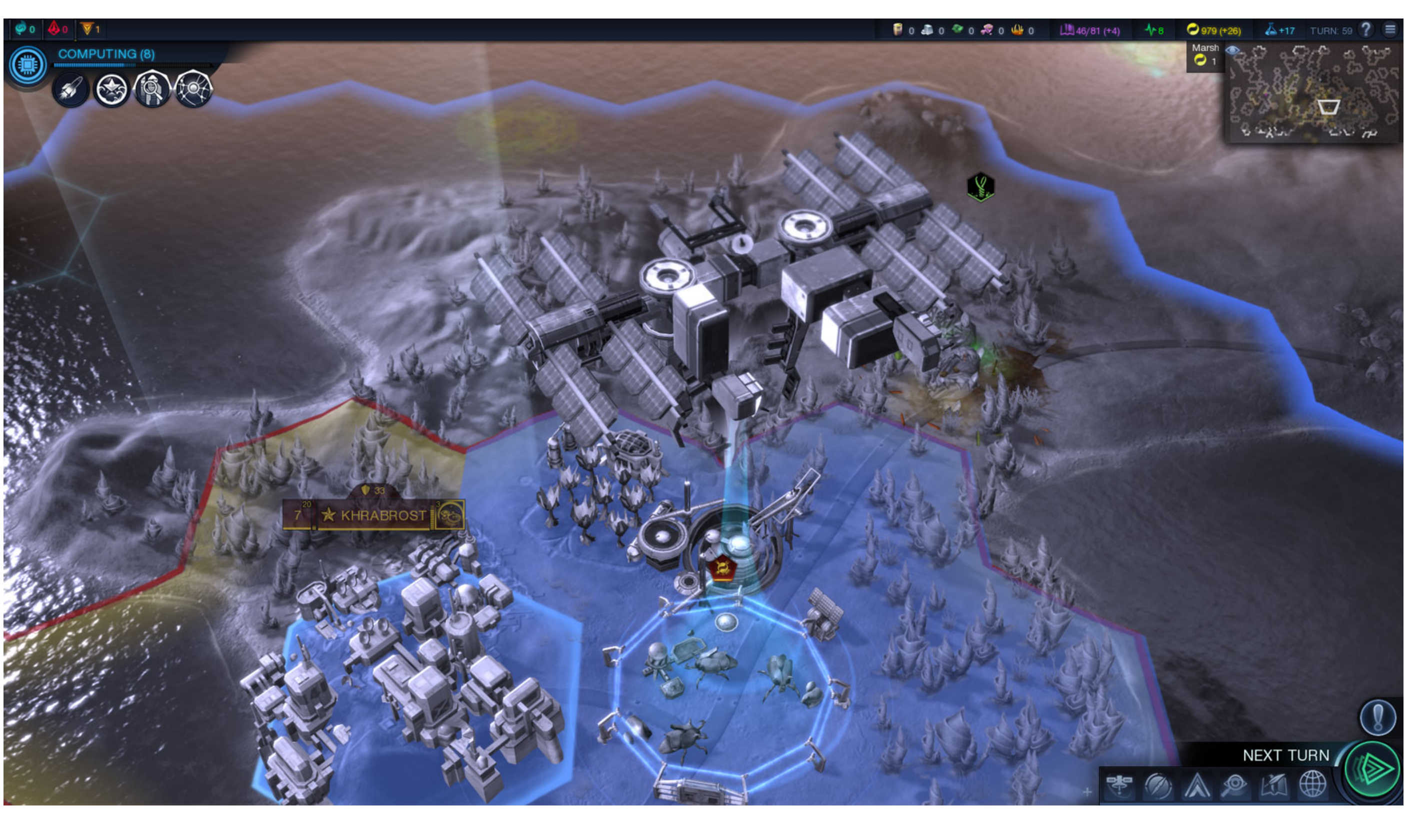
Most orbital technology isn't available in the early game. You must research somewhat deep into the Technology web to unlock these units. Many of them have strategic resource requirements, so heavy orbital users frequently battle over Petroleum and Titanium, both of which are major components of your orbital fleet.


GENETIC DESIGN (2)
NEXT TURN

Chapter 04: *Units* has an extended description for every type of orbital in the game, and it also has an explanation of orbital mechanics. You can also look through the Technology web to see where all of the orbital techs are hidden. However, for your convenience, the satellites are listed here, as well.

Orbitals And Their Technology

- **All-Seer:** Dark Networks Protects a city from Intrigue
- **Deep Space Telescope Orbital Automation:** 25% city Science bonus and discovers "The Signal"
- **Holomatrix Civil Support:** +2 Culture for tiles under its skirt; provides cities within range 50% less intrigue from enemy Covert Agent activity.
- **Lasercom Satellite Orbital Networks:** 15% city Science bonus
- **Miasmic Condenser Alien Ecology:** Generates miasma
- **Miasmic Repulsor Ecology:** Clears miasma
- **Orbital Fabricator Geoscaping:** +1 Production for tiles under its skirt, adds strategic resources over time
- **Orbital Laser Cybernetics:** Ranged attacker: 70 ranged Combat Strength
- **Phasal Transporter Cybernetics:** Teleports units from friendly cities to areas under its skirt
- **Planet Carver Astrodynamics:** Ranged attacker: 120 ranged Combat Strength
- **Solar Collector Photosystems:** +1 Energy for tiles under its skirt, +20% Energy creation in cities
- **Tacnet Hub Communications:** +20% Combat Strength to friendly units and +5 HP Healing per turn
- **Weather Controller Climate Control:** +1 Food for tiles under its skirt, adds basic resources over time

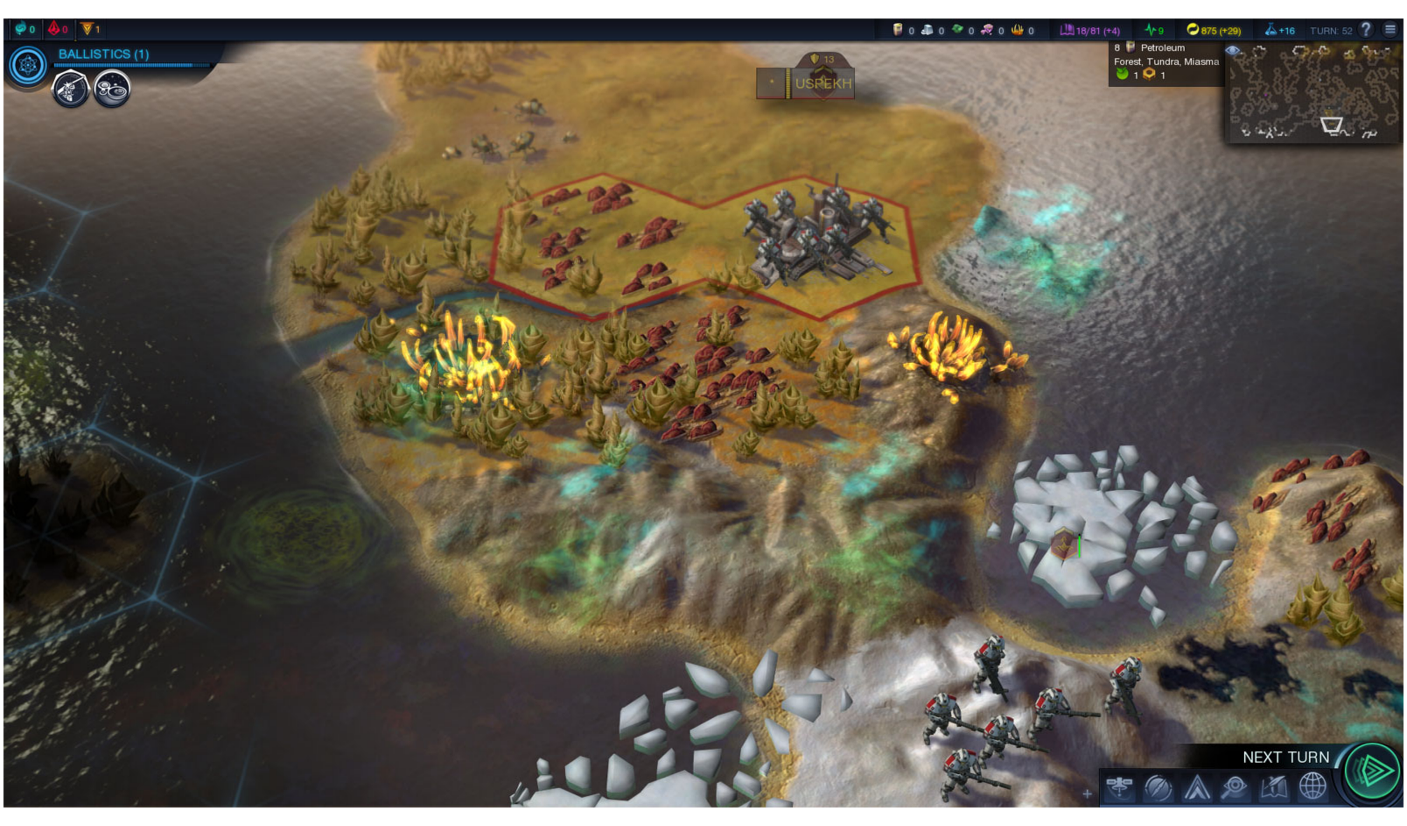

COMPUTING (8)
KHRABROST
NEXT TURN

MIASMA

Miasma is the greenish cloud of spores that covers a game tile. Miasma can appear on any tile except those with water, ice, mountains, or settlements.

Non-alien units take 10 HP of damage per turn if they stop their movement inside Miamasa. This is reduced or eventually negated by technologies that improve your understanding of the world. Harmony players even begin to benefit strongly from the presence of Miamasa.

In the early game, do everything that you can to avoid prolonged actions inside miasma. Have workers rest after improving tiles inside the spores, and look for techs like Alien Biology (which lets workers clear miasma and work inside of it without taking damage).

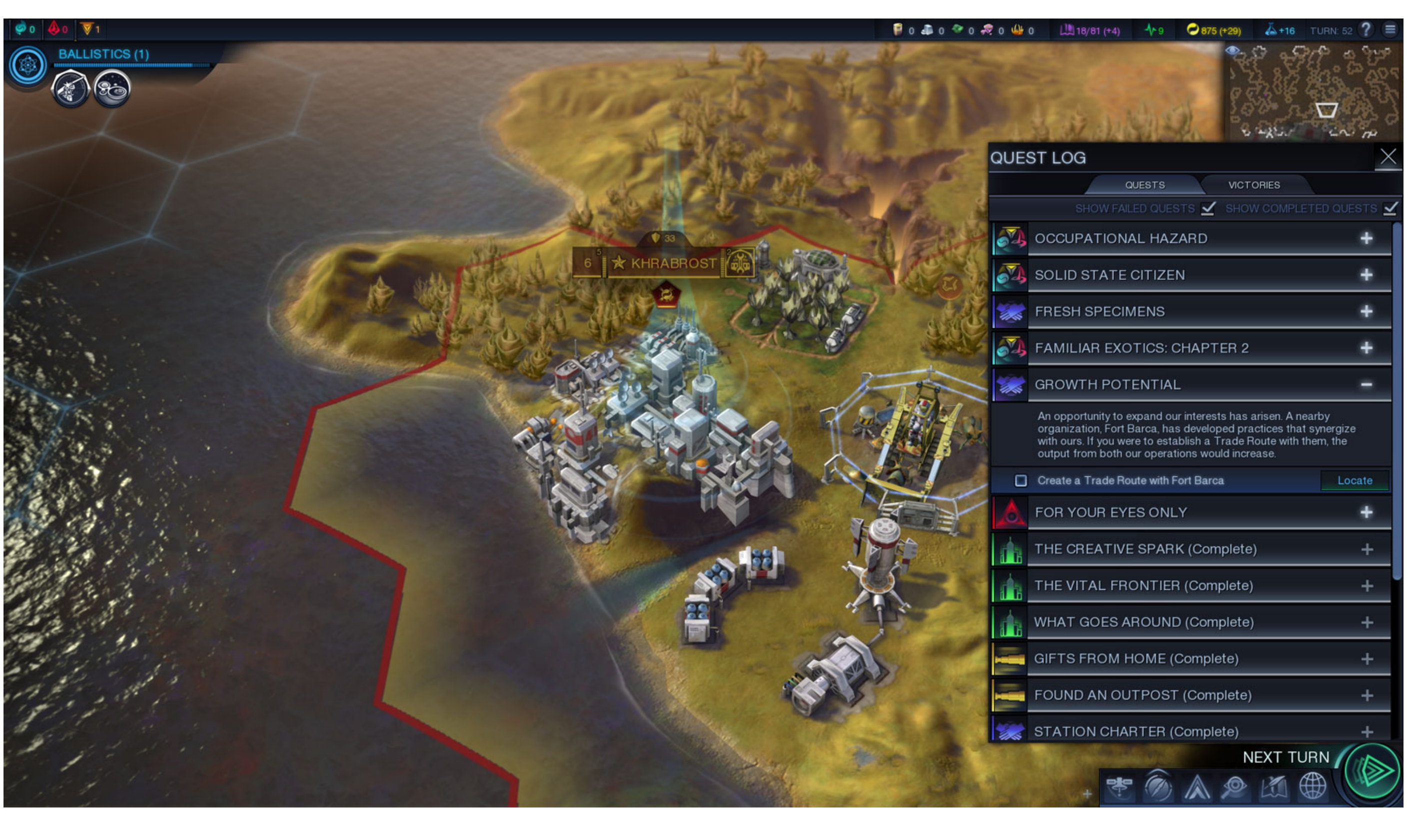

BALLISTICS (1)
USPEKH
Petroleum
Forest, Tundra, Miasma
NEXT TURN

Be warned: large areas of miasma often have increased numbers of aliens and alien nests inside of them. Do not approach these areas with non-military units or small groups of your troops. Make sure that you send tough upgraded units into such areas. Otherwise, you're going in at your own risk!

QUESTS

Quests let you develop the specific bonuses for your buildings and grant free resources for your Colony. Many of these are triggered by your own actions (such as exploring or finding expedition sites, uncovering stations, or constructing new types of buildings). Others are given beforehand by timed/random events or are always a part of the game.

Use the Quests and Victories screen to see what's available currently, and read Chapter 09: *The Quest System* to find out everything that you can accomplish with quests. The system is immensely powerful once you get used to it, allowing for a large advantage over rivals who haven't mastered it.


BALLISTICS (1)
KHRABROST
QUEST LOG
QUESTS
VICTORIES
SHOW FAILED QUESTS
SHOW COMPLETED QUESTS
OCCUPATIONAL HAZARD
SOLID STATE CITIZEN
FRESH SPECIMENS
FAMILIAR EXOTICS: CHAPTER 2
GROWTH POTENTIAL
Locate
FOR YOUR EYES ONLY
THE CREATIVE SPARK (Complete)
THE VITAL FRONTIER (Complete)
WHAT GOES AROUND (Complete)
GIFTS FROM HOME (Complete)
FOUND AN OUTPOST (Complete)
STATION CHARTER (Complete)
NEXT TURN

An opportunity to expand our interests has arisen. A nearby organization, Fort Barca, has developed practices that synergize with ours. If you were to establish a Trade Route with them, the output from both our operations would increase.

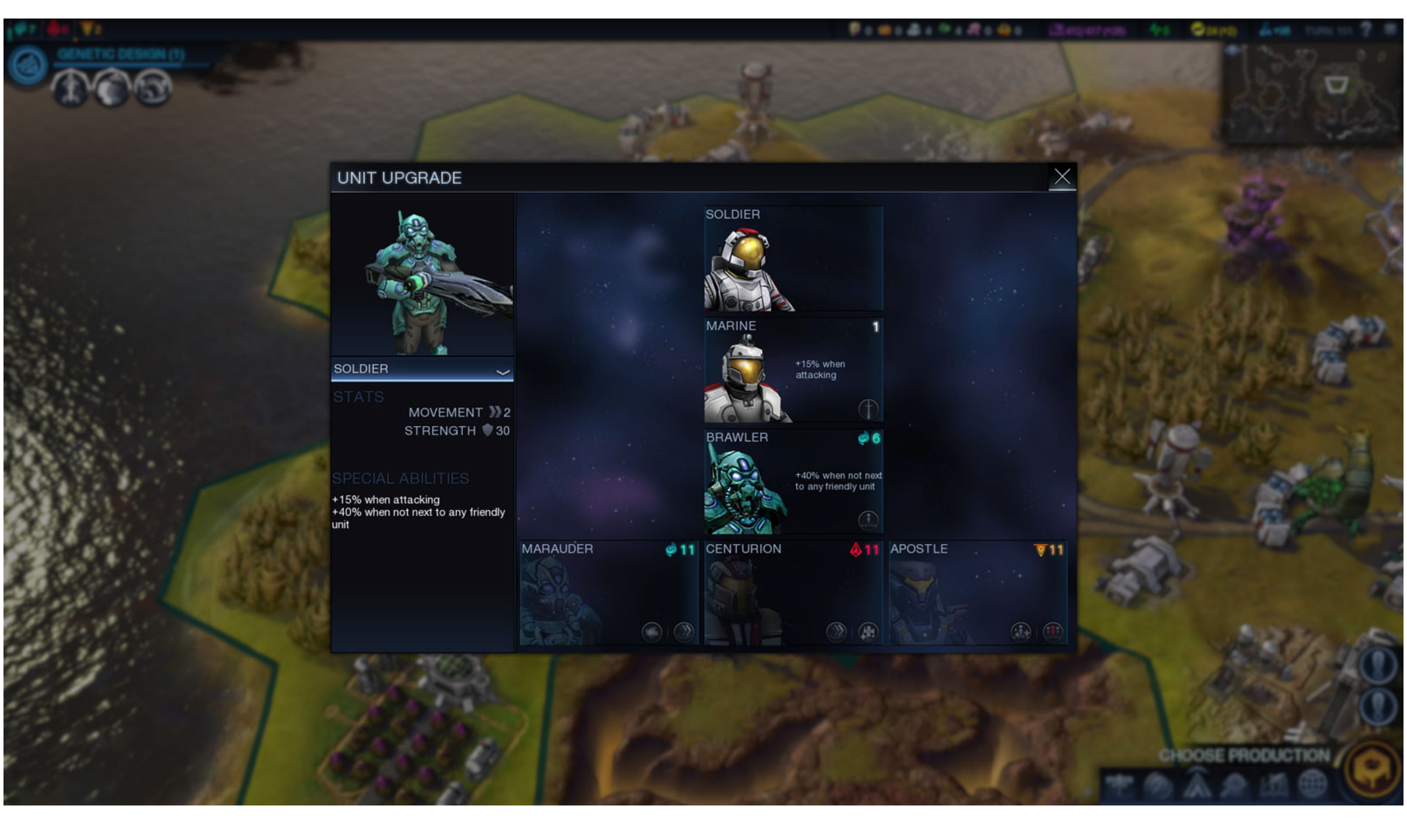
☐ Create a Trade Route with Fort Barca

AFFINITIES

The Affinity system gives you much more power than before to determine the types of units that your civilization fields. Additionally, there are several passive bonuses that you get from earning Experience in each of the three Affinities that the game tracks.

This is one of the most important subjects to master while learning how to play *Civilization: Beyond Earth*. This guide has devoted a chapter toward explaining the three Affinities and the bonuses that they provide. See Chapter 10 to find out more.

If you're feeling bold, you can also read through the chapter on units. Though the chapter is lengthy, it explains every unit that is given to each Affinity. By the end of that, you're going to have a very comprehensive idea of what each group is capable of doing.


UNIT UPGRADE
SOLDIER
MARINE
+15% when attacking
BRAWLER
SOLDIER
STATS
MOVEMENT 2
STRENGTH 30

Core Concepts

Changed Concepts

PODS AND EXPEDITIONS (MORE INVOLVED THAN VILLAGES)

There are two types of free goodies that are present on the game map: Resource Pods and Expedition sites. The former are available from the very beginning of the game and are not seeded over time. As Colonies settle, they'll start to gobble Resource Pods up with their explorers and wandering military units. Once they're gone, that's it for the game's free pods.

Resource Pods contain bonus Culture, Science, Energy, or an occasional solar collector (an orbital that generates Energy over time for its area of effect). None of these bonuses are huge, but you can still get a fair boost to your early game if you're lucky and find multiple pods. They're especially powerful as a boost to Culture, which is normally quite slow to accumulate during those early turns. This can get Colonies one or two virtues before their time, allowing for faster growth or capabilities in that section of the game.

BALLISTICS (6)
EXPLORER
Expedition Modules 1
NEXT TURN

Expeditions are more involved, but they also contain greater rewards. You find Expedition Sites starting from the beginning of the game. There are only a few starting points of this type, but more generate over time. Destroyed stations and alien nests sometimes become Expedition Sites, as do the areas where orbitals fall from the sky.

While any of your units can pick up Resource Pods, Expedition Sites aren't usable by anyone except explorer units. This is one of the reasons that explorers are so useful to each Colony. Get them over to any derelict settlement, alien skeletons, crashed satellites, ancient tombs, caves, or Progenitor ruins that you find.

Explorers work on these tiles for a good amount of time, much like workers improve tiles. However, explorers don't have to be inside your borders to launch an expedition, so feel free to wander the world looking for these treasures.

Other Colonies complain if you work on a site that's close to their borders. You have the option of apologizing after you get your loot, or telling them to deal with it. If you promise not to do this again, you get better relations with the civilization in question (and this is compounded if/when you keep that promise). Otherwise, they're going to be even angrier when you break your promise and keep making expedition sites that they think should be theirs.

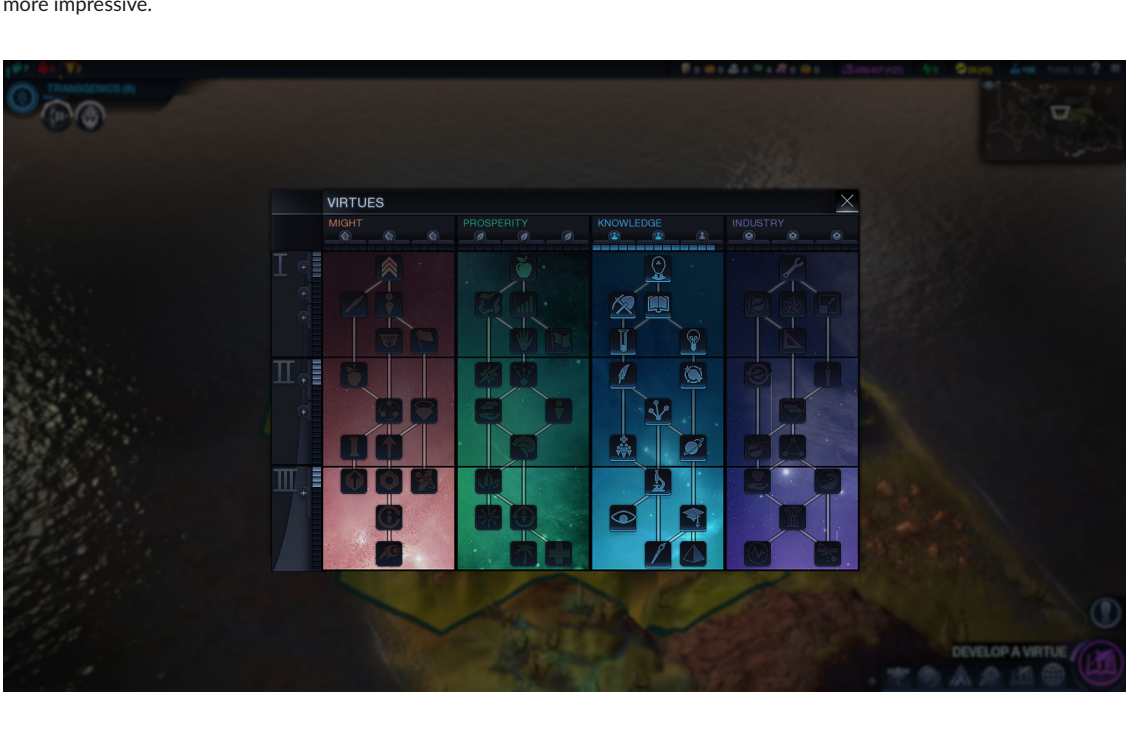
COMPUTING (1)
EXPLORER
Expedition Modules 2
CHOOSE PRODUCTION

Very few things in the game provide the same level of rewards as expeditions. You're able to get free units, affinity levels, technological progress, population points, Production, and other great things from these sites. Going after expedition sites is a major way to secure an advantage even once the early game has finished. Keep explorers around, having them at the ready in case new sites are discovered or are created.

VIRTUES

Virtues let you control the passive bonuses that influence your Colony's growth and development. There are four types of virtues: Might, Prosperity, Knowledge, and Industry. All of them are useful to each player, but they obviously favor different aspects of your Colony's power.

Culture builds over time to let you choose more and more virtues, and the bonuses within each branch of the virtue system get more impressive.


VIRTUES
MIGHT
PROSPERITY
KNOWLEDGE
INDUSTRY
I
II
III
DEVELOP A VIRTUE

COLONIES AND SPONSORS

Chapter 02 discussed the various sponsors and starting options that define your early Colony. This is a somewhat distinct change from *Civilization V*. There, you chose a nation, and that determined your passive bonuses, unique buildings, and unique units. In *Civilization: Beyond Earth*, your sponsor is one of several choices during game creation, so there are way more options than ever before for customizing the exact Colony you're trying to forge.

Try a wide range of combinations to learn which combination is best for your style of play. Some of these are going to be better depending on the map you end up choosing, so think heavily about that before committing to your final selections.

ÉLODIE OF FRANCO-IBERIA
NEUTRAL
DECLARE WAR
Deal
Demand
Discuss
Goodbye

Come and share; Franco-Iberia offers warmest greetings...

UNIT STATS AND DEVELOPMENT

Head over to Chapter 04: *Units* to learn about the statistics, training, and use of units in this game. This chapter explains what each unit can do and also goes over the general function of your military and civilian units.

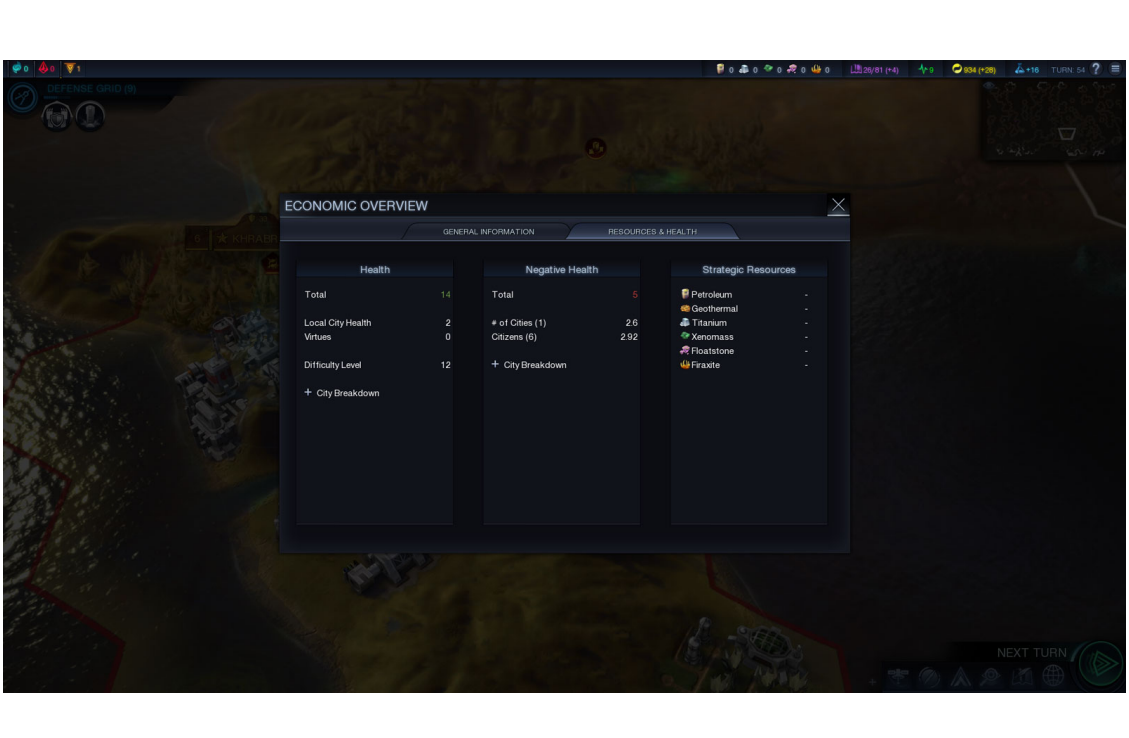
BALLISTICS (1)
COLONIST
UNIT IS OUT OF MOVES
0/2
NEXT TURN

HEALTH

There is always a limiting factor that controls your cities' growth. This is essential for creating a game that isn't simply a matter of spamming colonists and settling as many cities as possible, as quickly as possible. This version of *Civilization* brings back health concerns. Your Colony experiences penalties for various tiers of low Health and gets bonuses for several possible levels of good Health.

Tiers Of Health

- **Panicked:** -20 Health and beyond -10% Production, Science, and Culture, double Intrigue from enemy actions, 50% reduced city Growth, -50% outpost Growth
- **Troubled:** -10 to -19 Health -10% Production, Science, and Culture, double Intrigue from enemy actions
- **Shaky:** -1 to -9 Health -10% Science and Culture
- **Stable:** 0 to 9 Health +20% outpost Growth
- **Prosperous:** 10 to 19 Health +10% Production, +20% outpost Growth, -50% Intrigue from enemy actions
- **Utopian:** 20+ Health +10% Production, Science, and Culture, +20% outpost Growth, -50% Intrigue from enemy actions


ECONOMIC OVERVIEW
GENERAL INFORMATION
RESOURCES & HEALTH
Health
Negative Health
Strategic Resources

Health decreases when you have more citizens and more cities. Each city costs more than several citizens, so you must be cautious about founding outposts when your Health is already low.

To get an idea where your Colony's Health is currently resting, look at the top of the screen. Highlight the Health symbol; it will be green if you are getting bonuses from high Health or red if you're in penalty territory. When you highlight your Colony's Health, you get to see a breakdown of your bonuses or penalties and the influences that give you your net Health tally.

Higher difficulty levels increase the challenge of the Health system by starting you with a lower amount of positive Health. Be even more careful about fast expansion when you move up to higher tiers of difficulty! Before founding many outposts, wait for more buildings that have Health bonuses.

BALLISTICS (1)
COLONIST
UNIT IS OUT OF MOVES
0/2
NEXT TURN

Your Health gets even worse when conquering new territory. Enemy cities that are annexed cost you additional Health until the people have had time to adjust. There isn't anything that you can do to rush this, so watch out for your Health during successful combat campaigns.

Buildings with Health bonuses, constructed in all of your cities, make a huge difference in your Colony's total Health, but that isn't all that you can do. Certain wonders aid in this system, and Prosperity virtues are also amazing for improving Health. In fact, the final tier of Prosperity virtues comprises one of the best ways possible to have a massive nation that still is constantly healthy no matter what you do.

It's okay to dip into negative Health from time to time. This doesn't cripple your nation on a short-term basis. Instead, it adds penalties that really add up over time. If you get out of negative Health fairly quickly, there isn't a big downside to this. So, make sure to prioritize Health buildings when Health is getting low, but don't overbuild them. Having too much Health is wasted, and the bonuses stop coming in at +20 Health; it's easy to overshoot in the late game, so start to cut back heavily once you approach the positive Health cap.

GENETIC DESIGN (1)
FREELAND
CHOOSE PRODUCTION

ENERGY (MONEY IN A NEW ERA)

Energy is what makes the world go around. You gain it through tile improvements like generators, Energy-producing buildings, foreign trade routes and specific station routes, and by working water-based tiles near rivers, oceans, or lakes. Some resources also yield Energy when your citizens work them.

Sometimes, you also get Energy from finding Resource Pods, pillaging enemy tiles, destroying alien nests, or negotiating for it during diplomatic meetings.

CITIZENS
JIMBOOMBA
Citizen Management
Production Management
EXPLORER
RETURN TO MAP
City Buildings and Wonders
Production Queue

Thus, there are many ways to earn Energy. Think of it like you would money in other *Civilization* games. This is a resource that lets you quickly construct buildings, train units, and pay for all of these items over time. A strong economy can do all of these things without making sacrifices. A decent economy can pay for itself without any problems, but it cannot afford to waste Energy on fast construction or training.

Weak economies are a big danger to your society. They'll have trouble paying for buildings in your cities, and that limits the amount of development that you can do. Use workers to improve Energy yields on your tiles, and prioritize economic buildings when you're worried about your net income.

Your Energy is shown in gold at the top of the screen. Highlight it to see where your Energy is going (toward building and unit maintenance mostly, but also to roads). Additionally, you can see where you're getting your income. City connections, trade routes, and buildings are all vital to a healthy economy.

GENETIC DESIGN (1)
JIMBOOMBA
FREELAND
RANGI
CHOOSE PRODUCTION

When your budget totally fails, your upkeep starts being funded by Science instead of Energy. That's a nightmare scenario; you won't advance quickly, and your rivals are likely to pull ahead of you. Reduce the size of your military if you must, switch Production entirely over to economic buildings, and hope for the best!

A strange danger when it comes to Energy is to hoard too much of it. A few players like to feel nice and cozy with a huge pile of Energy credits at their backs. Admittedly, this is way better than being totally broke, but not using your money is still very bad for your Colony. Energy doesn't do anything for you on its own; Energy that isn't invested into buildings, units, or expanded borders is practically wasted. Don't fall into this trap.

Keep enough Energy on hand at all times to protect against a sudden border attack. As a rough estimate, you could look up a good defensive building (like the defensive perimeter). Check the purchase price for those, and add in two military units. That, at most, should be your cap for Energy carryovers unless you have a specific strategy for hoarding money, as some Industry players do because of their interest bonuses.

CITIZENS
PEMBELA
CYNOSURE
Citizen Management
Production Management
RETURN TO MAP
City Buildings and Wonders
Production Queue

You should spend everything over your Colony's rainy day fund as soon as you get it. Purchase Growth and Production buildings in new cities for the maximum benefits during peaceful times. During war, you probably need to devote that Energy to reinforcements or defenders.

It's also easy to forget about tile purchases. City borders expand on their own, so some players don't bother with purchasing border expansions. However, this is a mistake. Grabbing tiles with resources can substantially help a city expand. You can also block off areas to frustrate enemies who are trying to get past you for colonization or exploration. Connect your border as soon as possible so that others must bribe you for open borders or simply give up on territory that you are isolating.

ALIENS (MUCH WORSE THAN GREEN BARBARIANS)

Aliens are a neutral party on your new world. They're not cheering for any Colony in particular, and they can turn rather aggressive if people attack them. Even when everyone is nice, aliens are a nuisance. They attack Workers, Colonists, Trade Units, and anything that gets too close to their nests. They block off territory and stay near miasma, which is already an environmental hazard on its own.

GENETIC DESIGN (1)
CHOOSE PRODUCTION

Choose fairly early on how you're going to deal with the alien threat. You can try to avoid fights with them using ultrasonic fences and careful movement to keep your units out of fights. Or, you can clear out aliens and their nests to make room for even more human expansion. You can also buy a tile with an alien nest, become friendly with them, and then use them for defense.

The former method is safe, and it doesn't cost much in terms of Energy or Production. You let the aliens have their space, you keep them away from your cities with the fences, and that's all there is to it.

The aggressive method costs more but has several major benefits. You must train a larger military in the early game because the aliens aren't pushovers. Fight your way to their nests, destroy them, and you get both Experience (from the fighting) and resources (from the nest itself). You also can grab that land afterward and settle it, if you want.

TRANSGENICS (6)
RANGI
BRAWLER
PLEASE WAIT

Fighting the aliens causes them to become more aggressive toward humans. Their icons change colors as they get angrier (green is stable, orange is hostile, and red is infuriated). Though this status returns to normal over time, it isn't a quick process because aliens trigger further conflict once they're upset. They'll push more assertively into human territory and bring buddies with them.

When you do go after alien nests, make sure to take multiple units. During the early game, your best soldiers can't hope to fight off multiple alien attackers, and nests spit out plenty of units. They have fliers, ranged attackers, and ground troops. Luckily, their largest units either spawn in the open ocean and can't come up on land, or they're just large, simple worms that destroy territory but don't gang up with the units from the alien nests. That's a relief.

If you constantly attack aliens, at least a few rival Colonies are going to take offense. AI players that aren't harming the aliens get a substantial diplomatic penalty when dealing with Colonies that are attacking the aliens. Still, you can't be friends with everyone, and this won't always lead to war if you are nice to the other Colonies in different ways.

Befriending the aliens will help maintain a good defense for your cities, and allow your units to move freely among them. This may take a while to take effect, as you must first buy a tile occupied by an alien nest, and then refrain from attacking the aliens for 60 turns. It might be best to settle a city next to an alien nest and heavily guard it until you can buy or build an ultrasonic fence. After waiting the 60 turns, the aliens' icon turns blue indicating that you are now friends with them. You are then free to settle cities without worry of alien attacks, and use them as a defensive barrier when at war.

CEO SUZANNE FIELDING OF ARC
NEUTRAL
Back

I am distressed by your actions towards the alien life. You do not fully appreciate what their existence means, and I will not allow you to jeopardize our future with your recklessness.

Though you can't totally remove aliens from the game without settling the entire map, the presence of aliens still diminishes over time. New alien nests only appear in neutral territory on Xenomass that hasn't been improved yet. As the Colonies' borders expand, there is less and less land available to the aliens for these new nests. Also, humanity gets access to better weapons, and it becomes much easier to clear out alien nests with smaller groups of troops.

Alien units are great for training your military. They have limited Combat Strength, and you often know what to expect from them. They also don't come in gigantic numbers, so a force with two or three units can usually handle almost everything the aliens have to throw at you.

Alien hunting is diplomatically dicey, as stated earlier, but it also has limits. You can't get more than two levels for each unit while hunting aliens. After 30 XP, you simply don't learn anything new from fighting the green hordes.

STATIONS (NEITHER A CITY, NOR A STATE)

When you're ready to learn about stations, go to Chapter 13. It covers all of the nuances of these locations so that you know how to trade with or exploit these groups.

Stations take up only a single tile and generate different resources for their trade partners. They function in a vaguely similar way to City-States in *Civilization V*, but they don't have the same level of power and influence. You won't have to face station units, or worry about major diplomatic changes unless another Colony was already trading with the station that you attack. However, if you attack them, they will attack back as if it were a city attacking.

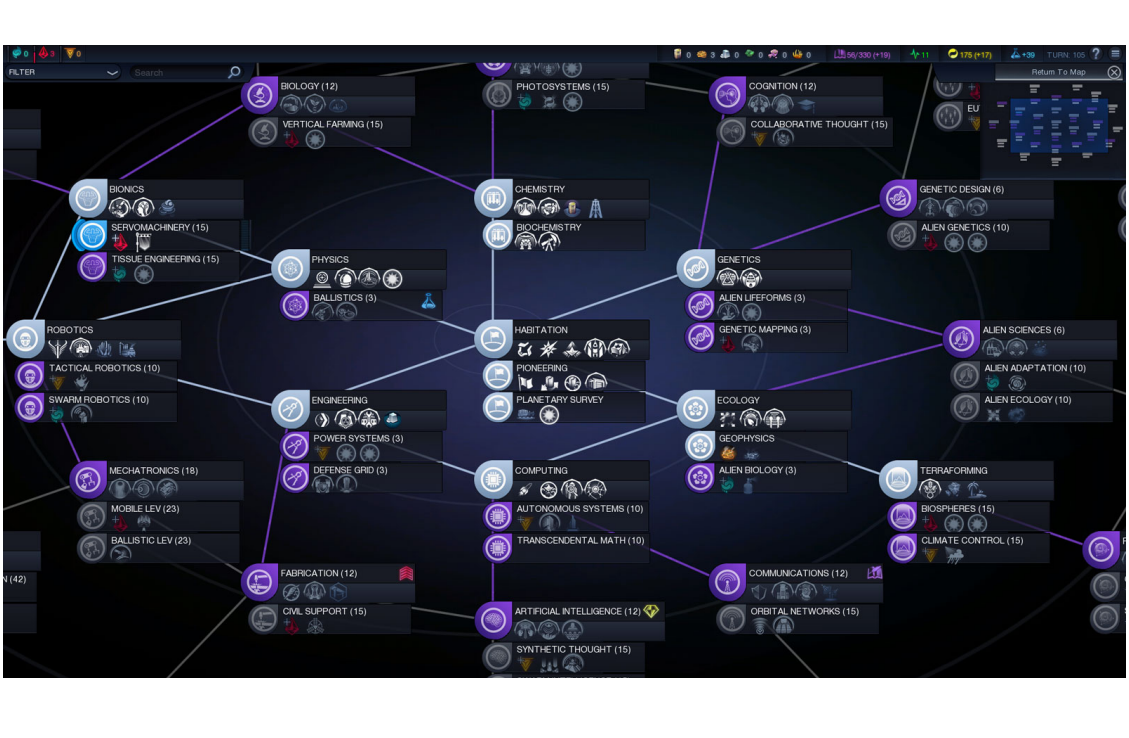
PIONEERING (6)
MIASMIC REPULSOR
READY TO LAUNCH
Quest Complete
CHOOSE PRODUCTION

THE TECHNOLOGY WEB

Earlier *Civilization* titles had a Research tree that gave you options about what to study without giving you too much room to do anything strange. There were often several major paths of Research, and it was very costly to try to pursue one of them to the exclusion of the others (especially because some Technologies were dependent on others from peripheral branches).

That system is now a web, which makes more of a difference than it might sound. In the Technology web, you can research anything that touches on a branch that you've already mastered. It's possible to go extremely far in whichever direction you want because nothing in the game requires you to have multiple precursor Technologies. In fact, it's quite the opposite: you often have Technologies that are unlocked by any one of several choices, making it very easy to navigate toward the bonuses and buildings that you want to acquire the most.

Chapter 08 discusses all of the Technology in the game and how the Research system works. This is a very exciting area of the game, so have fun exploring it! The chapter also talks about maximizing Science output so that you complete your Research in a timely manner.


BIOLOGY (12)
VERTICAL FARMING (15)
PHOTOSYSTEMS (15)
COGNITION (12)
COLLABORATIVE THOUGHT (15)
GENETIC DESIGN (6)
ALIEN GENETICS (10)
BIONICS
SERVOMACHINERY (15)
TISSUE ENGINEERING (15)
PHYSICS
BALLISTICS (6)
CHEMISTRY
BIOCHEMISTRY
GENETICS
ALIEN LIFEFORMS (3)
GENETIC MAPPING (3)
ALIEN SCIENCES (6)
ALIEN ADAPTATION (10)
ALIEN ECOLOGY (10)
ROBOTICS
TACTICAL ROBOTICS (10)
SWARM ROBOTICS (10)
HABITATION
PIONEERING
PLANETARY SURVEY
ENGINEERING
POWER SYSTEMS (3)
DEFENSE GRID (3)
ECOLOGY
GEOPHYSICS
ALIEN BIOLOGY (3)
MECHATRONICS (18)
MOBILE LEV (23)
BALLISTIC LEV (25)
COMPUTING
AUTONOMOUS SYSTEMS (10)
TRANSCENDENTAL MATH (10)
TERRAFORMING
BIOSPHERES (15)
CLIMATE CONTROL (15)
FABRICATION (12)
CIVIL SUPPORT (15)
ARTIFICIAL INTELLIGENCE (12)
SYNTHETIC THOUGHT (15)
COMMUNICATIONS (12)
ORBITAL NETWORKS (15)

DIPLOMACY

The fine art of negotiation, threats, and trade makes a return. Though there is no longer a diplomatic means of victory, you still must use this system carefully if you want to come out on top. Poor diplomatic skills can lead to very tricky battles against multiple opponents. Skilled use of Diplomacy allows you to turn enemies against each other and gain substantial benefits while you wait for others to eliminate their own chances for victory.

Your Reputation

First, some words about the way other Colonies view yours. There are quite a few ways to influence the way people think about you. You might be in an alliance with others, on friendly terms, neutral, hostile, or even at war with your rivals. Think of the positive side as being further and further away from war, and the entire spectrum as one long drop into aggression. The more ways you endear yourself to a rival, the better they'll feel about you (and the more negative activity it will take to have them declare war against you).

Diplomatic States

- At War You can enter enemy territory, attack their units, and take their cities.
- **Peace:** You cannot attack rival units or enter their territory without an open borders agreement; peace will last until the end of a ceasefire agreement and then return to a normal status.
- **Hostile:** The rival nation is upset with yours, often for multiple reasons; war is close.
- **Neutral:** Your rival has balanced or minimal feelings about your Colony.
- **Friendly:** Similarities in government or interests have brought you close to this nation.
- **Guarded:** Negotiations aren't as likely to go well and the mood is sour, but war can still be averted with considerable effort.

SAMATAR JAMA BARRE OF AFRICAN UNION
HOSTILE
Back

Unacceptable. Our interests demand expansion, and we have the right to pursue it.

I must insist, as repayment for the past goodwill I have shown you. (2 Favors)

Very well. Let us discuss something else...

Diplomatic Gestures And Agreements

- **Cooperation Agreement:** You gain increased trade benefits from international routes to this rival and gain line of sight from their covert agents in third-party territory.
- **Alliance:** You gain open borders and cooperation agreements with this rival and will automatically declare war if they enter into war with any third party.
- **Open Borders:** You can travel in the other nation's territory without provoking war (not possible unless you're at least neutral with the given nation).
- **Condemnation:** One nation lowers their diplomatic status with another as a show of anger; this may lead to war, but it does not have to.

REJINALDO DE ALENCAR SAYS:
NEUTRAL
What do you wish to offer?
REJINALDO DE ALENCAR ITEMS
YOUR ITEMS
GAIN FAVORS
86 ENERGY
-8 ENERGY PER TURN
35 SCIENCE PER TURN
STRATEGIC RESOURCES
OPEN BORDERS
ALLIANCE
CITIES
OTHER PLAYERS
SPEND FAVORS
175 ENERGY
17 ENERGY PER TURN
39 SCIENCE PER TURN
STRATEGIC RESOURCES
Geothermal (3)
OPEN BORDERS
ALLIANCE
CITIES
THEIR OFFER
YOUR OFFER
BACK
PROPOSE

Now that you know the continuum, it's useful to learn how to improve or upset relations between your Colonies and your rivals.

Ways To Improve Relations

- Have the same Affinity as another nation (must have at least seven levels in your dominant Affinity).
- Provide gifts of resources, units, or cities.
- Promise to do what a rival asks you to do.
- Fulfill your promises.
- Establish a trade route between your city and a rival's.
- Treat the aliens in the same manner as your rival.
- Take a city that was conquered by a third party, and then liberate it for the rival in question.
- Establish a cooperation agreement or alliance with a third party that your rival is also close to.
- Lower your relationship with a third party that your rival also is hostile or at war with.
- Declare war on a third party while your rival is at war with them.

Ways To Sour Relations

- Have a different affinity than your rival.
- Refuse a demand.
- Make a demand of your own against your rival.
- Break a promise that you made.
- Launch expeditions near a rival's territory.
- Keep your military units or orbitals close to another person's borders.
- Expand your Colony until your borders close in on a rival.
- Get caught using covert operations against one of your rival's cities.
- Attack a station that your rival is trading with.
- Raise your relations with a third party that your rival is hostile toward or at war with.
- Lower your relations with a third party that your rival is friendly with.
- Fight offensive wars or take enemy cities (even if they started the war).
- Have a history of war with the rival.

SERVOMACHINERY (15)
DIPLOMACY
RELATIONSHIPS
DEAL HISTORY
CIVILIZATION
SCORE
GLOBAL POLITICS
Élodie
214
YOU
Rejinaldo de Alencar
201
NEUTRAL
Daoming Sochua
184
NEUTRAL
General Vadim Kozlov
176
NEUTRAL
Kavitha Thakur
199
ARMOR
A UNIT NEEDS ORDERS

Making Friends

For easy resources and a safer way of life, trade heavily from the beginning of the game. Seek cooperation agreements to improve the yields of these routes, and try to agree to any reasonable demands that the other Colonies make. Go ahead and steal an Expedition Site here and there, but be willing to back off and promise to stop doing that once each Colony notices. You can then gain points with them by sticking to your word; send your explorer to another Colony's border, and resume your activities there.

If you heavily court another Colony, make sure to stick with that until there is a good reason to break from that friendship. Team up with them during any useful wars to get even more brownie points with your buddy. When the target of that war is far away, you're often safe from harm and don't have to contribute much. When the enemies are close, you have the potential to get territory quite easily because the enemy must fight a two-front war (or worse).

ESTABLISH TRADE ROUTE
Starting City: Khrabrost
Trade Unit: Trade Vessel
Civilization Name
Your Cities
Your Outposts
Other Colonies
Stations
Far Base One
Fort Barca
Trade Overview
KHRABROST
A UNIT NEEDS ORDERS

Using Enemies

You don't have to be nice to get ahead. Try not to anger the entire world at the same time, though, because that leads to challenging wars, and it's nice to know that you're going to win a fight before you start it.

Pick your enemies based on several factors: are they close enough to conquer, are they already hostile toward you, and would they be easy to defeat? Look at city Combat Strengths and unit numbers, the level of Affinity they are at and gauge each Colony's friendships before you act. If a nation is already being condemned by their rivals, it's safer to go after them. Never pick on the popular Colonies unless you're ready to fight more enemies at the same time.

GENERAL VADIM KOZLOV OF SLAVIC FEDE...
WAR!
Negotiate Peace
Deal
Demand
Discuss
Goodbye

Attacking me was a mistake. I will soon show you why.

Diplomatic Tells

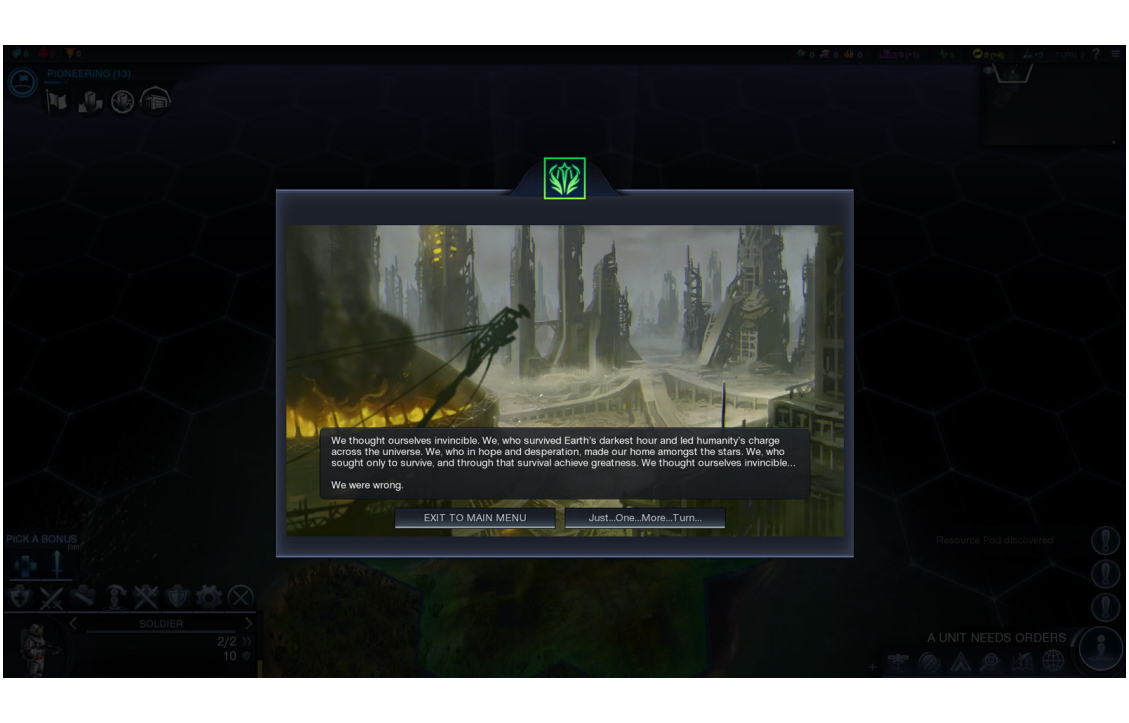
A computer opponent often makes it clear when it wants to start a fight. Units lining up on your border are only one giveaway that war is coming. Watch the way that your neighbors treat you. If a rival suddenly condemns you for almost no slight, and then they mock you or demand something, they're looking for a pretext. It doesn't even matter at that point if you were once friends with that rival. They're spoiling for a fight, and they're going to keep making negative requests and statements until they're hostile toward you. Then, it's on.

Don't wait and be idle about this. Get your army ready, and make sure that your cities are defended. Station troops in advantageous ways to ambush enemies if and when they attack. Consider purchasing tiles to consolidate your territorial holdings and split up your enemy's advance. The sooner you're ready, the easier it's going to be to deflect the invasion and route those jerks before they get any cities or pillaging done.

TACTICAL LEV (5)
NEXT TURN

VICTORY

The game ends when either time runs out (500 turns in a standard game) or when one of the nations instantly wins by getting one of the five end scenarios. You can do this with military force, Research, and a strong economy, or by pursuing one type of Affinity to its late stages and finishing a project that it unlocks.

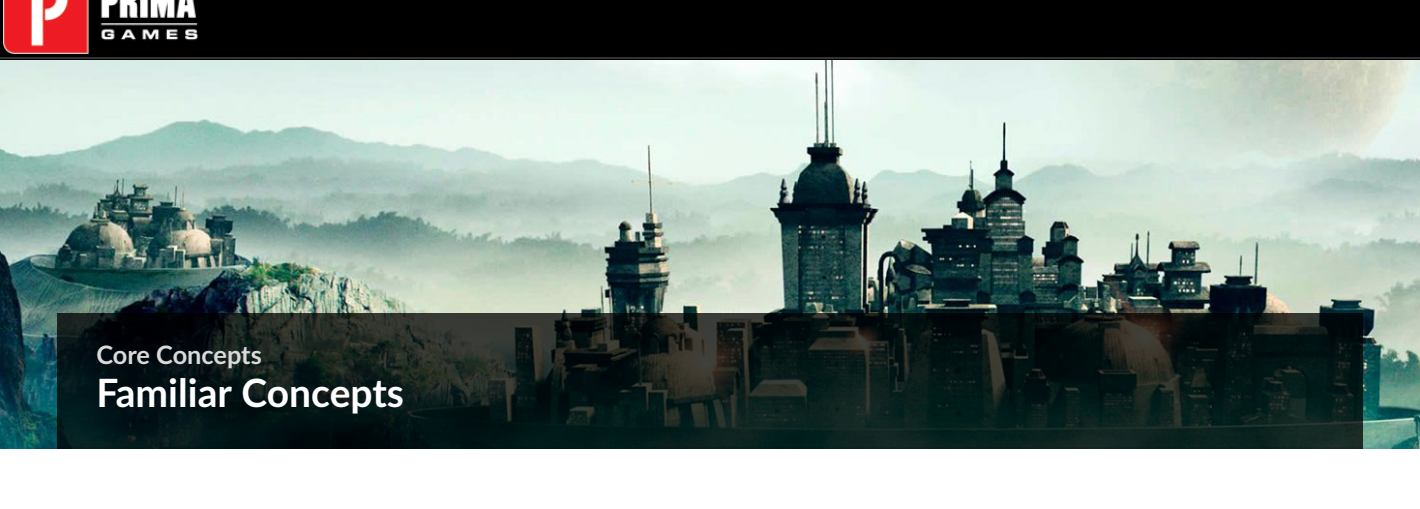

EXIT TO MAIN MENU
Just...One...More...Turn...

We thought ourselves invincible. We, who survived Earth's darkest hour and led humanity's charge across the universe. We, who in hope and desperation, made our home amongst the stars. We, who sought only to survive, and through that survival achieve greatness. We thought ourselves invincible...

We were wrong.

Chapter 15 ends with a substantial discussion on victory methods and how to maximize your chances of success with each of them.

On the other hand, you lose a game instantly if another Colony wins or manages to destroy the last of your cities. If you make it to the end of the game and don't have the high score, that also counts as a loss.



Familiar Concepts

UNIT STACKING LIMITS

Stacking limits return and are unchanged from the last release of *Civilization*. Tiles can hold one military unit and one non-combat unit at the same time. Other units of the same type can pass through that tile as long as they have enough movement to reach another tile within range before having to stop for the turn.

Cities can also hold air units and trade units, but neither of these can move around the map under your control.

ZONE OF CONTROL

Units and cities provide a zone of control around themselves. This prevents enemies from moving freely between two tiles that are both adjacent to the unit/city in question. If you start a movement inside a zone of control and finish that movement inside a zone of control, you lose all the remainder of your Movement Points for that turn. This allows units to block enemy progress through their areas, even when it's not their turn to attack.

Melee units that are fortified along roads or near open territory are very good at doing this because they allow their friends to move quickly through the area but stop anyone else who tries to squeeze in there.

Use your fast units to go out and around enemies so that you don't have to worry about their zones of control. There are also special units that get the ability to ignore zones of control. These units make ludicrously good raiders because it's easier for them to get into enemy territory, do some damage, and get out, even if your opponent manages to send adversaries over to them.

Because zones of control are so effective, you don't always need to have a full line of troops to create a wall. Having troops with a single tile that's empty between them can still halt most enemy movement rather effectively. You might even lure enemies to wedge themselves in there, forcing them to fight with flanking penalties and probably some heavy exposure to ranged fire from your units farther back.

CITIES

Cities have a slightly different way of running than they did in *Civilization V*. You still construct buildings and improve tiles to help the city yield more resources. Early citizens of each city are all devoted toward working the tiles that surround the town itself. After you get more citizens and have special buildings with specialist slots, you start to see a division between tile laborers and specialists who staff the buildings to give the city more specialized output.

The biggest change with cities is that you don't found them as quickly in this game. Colonists are trained from any city that can devote the time to train them. Note that Growth is halted during colonist training, so make sure that your city can afford not to grow for a little while. Once your colonist is done, have a tougher unit escort them to the new city site, and build an outpost with the Colonist special command.

That's where things change compared with the old days. Your new "city" starts off without much power or any citizens at all. You must wait while the outpost expands its borders to have nearby territory. This is hastened with trade convoys or trade vessels, and some starting bonuses and virtue selections help with it, too.

No matter what, it's going to take some time. Protect the outpost with your military, as outposts have low Combat Strength and can't counterattack. Even aliens are decent at taking out undefended outposts!

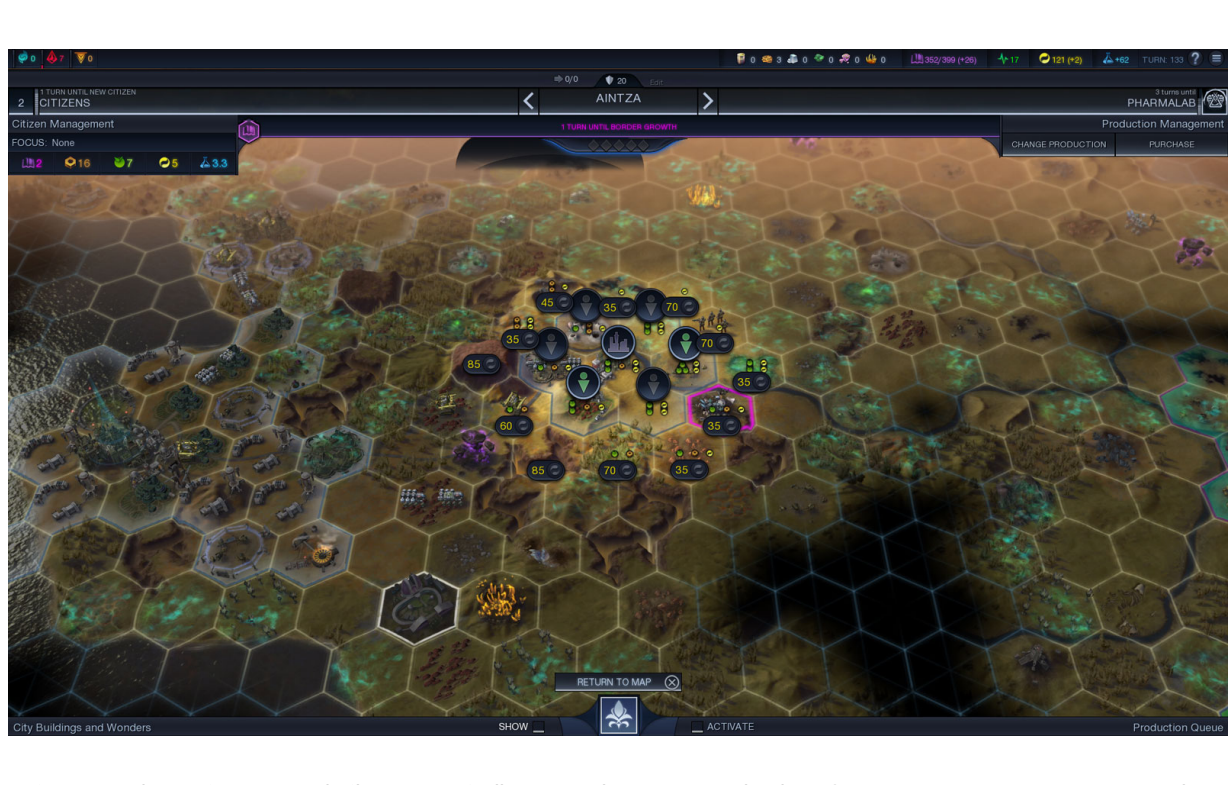
When ready, the outpost becomes a small city. It normally starts with one citizen and works a single tile beyond its base. That's when you can start trading with the city for resource bonuses, produce buildings, and train units. Make sure to maximize Food and Production during this early stage; these things get cities going very quickly. The more population they have, the more tiles they can work to improve their base resource generation. The more Production they have, the faster that city can get buildings to improve its output. Culture, Health, and Science are all secondary resources that are more important once a city can take care of itself. Until then, have your other cities train units for the new town and do what they can to raise the Health, Culture, and Science of your Colony.

You can't found new cities near existing stations, cities, or outposts. Make sure to give yourself room to grow, but don't have too much room and leave your people spread out where you can't defend them.

Internal City Matters

Cities have several features that are hidden inside their own screens. Click on a city's banner to get into the City Management screen. From there, you can change the city's Production, purchase troops or buildings outright, turn on the queue by holding shift so that you can line up several items for construction at the same time, or look at what you've already created.

This screen also shows your borders and the plans for the city's cultural progress. If you don't like the tiles you already have, it's possible to spend Energy to purchase additional tiles for your city to work. Though eventually somewhat expensive, this really helps when getting good resources for your most important cities. Why wait?



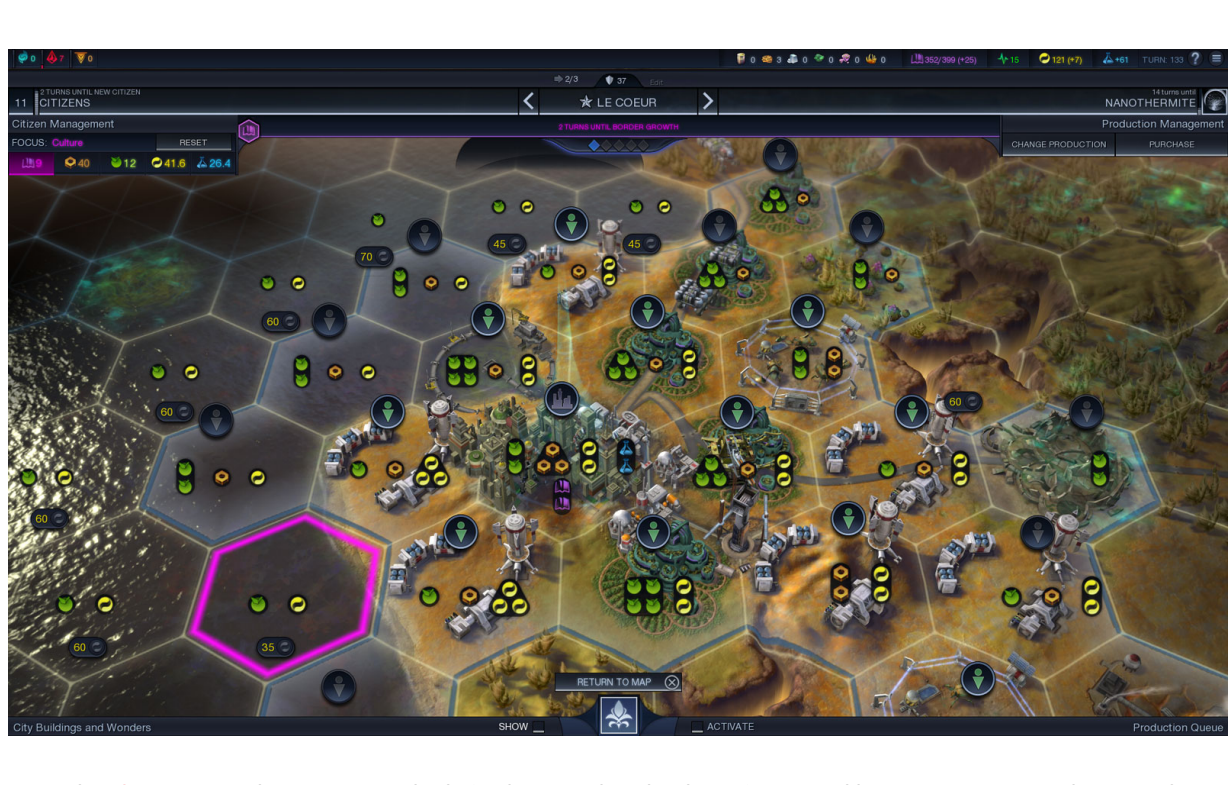
Cities assign their citizens to work tiles automatically, so you don't even need to lift a finger. However, you can customize this by clicking on workable tiles to put citizens onto them or take them off. This gives you the power to control the output of your city. Add more workers to heavy Production tiles to make a more industrial town. Go for Food for fast Growth, or Energy if your Colony is strapped for resources.

If you manually put a citizen onto a tile, they'll stay locked there because you told them to go there. Click on the tile again to remove a locked citizen from their job.

While in the City Management screen, you should also look at the city's output. Do they have enough Food to grow? Are they growing, but slowly? Is their Production fast enough to produce buildings every few turns, or are they languishing with low Production yields?

See where your cities are weakest, and find ways to help them get over their troubles.

If you want your city to focus on one resource, just click the Culture, Production, Food, Energy, or Science icons to make the citizens automatically work tiles with the most of that resource.



Internal trade routes are almost a universal solution because they develop cities so quickly. However, you can also focus the Production of that city on areas where it's weak. Use buildings to shore up low Growth, Production problems, or Energy concerns.

External City Matters

When you're outside of a city, look at the banner and see how much information is there. The city name is flanked by all sorts of data. The city's Combat Strength is the central number. The higher it is, the more damage the city does, and the lower it takes damage from all attacks. You can also see the turns until the city gains a new citizen and produces its next unit or building.

Once cities enter battle, there is a chance that they will be defeated and taken by another Colony. Both ranged attacks and melee attacks are often needed to accomplish this because cities have high Health and can get impressive Combat Strength, as well. They'll also frequently have garrison units to boost their Strength even more, or ranged units that give them even more attack opportunities. The ranged units can fire out of the city safely each turn without facing any return fire on the opponent's turn.

You can treat conquered cities in several ways. Razing them takes a number of turns to burn the city to the ground. As the new owner, you won't get any points from keeping the city because it's gone. This is going to upset other Colonies quite a bit. You might get called a butcher here and there. But if you don't have the Health to hold a city, or if you're certain that the enemy can take it back[el] well, then you might want to burn it down a little.

Annexing a city has a massive Health cost because you immediately absorb the city, its population, and their Resistance into your Colony. Resistance is a temporary Health penalty that fades over time. Once it's gone, you're in much better shape, and that city will act like your regular cities in terms of its Health costs.

Puppet cities are easier to manage. You won't have access to the city's Production menu, so it's going to build whatever it wants. However, you get the yields from the city and only a limited amount of Health problems. You're best off making a puppet city when national Health is low, and then annexing the city later, when you're ready to absorb the full brunt of Health problems.

Martial law is one other rub when taking enemy cities. Whether you annex or make a puppet city, you still must initiate martial law when conquering a city. This prevents you from using that location for Production until the martial period ends. The larger the city is, the longer this takes. It's usually wise to avoid annexing the city during this period because you can't make new buildings to assist with the extreme Health issues.

Cities get so much out of their buildings and wonders, but these are covered in the chapters ahead. Chapter 05 fully discusses buildings, their construction, and their values.

GROWING FOOD

Food is responsible for the growth of each city. Without local sources of Food, your city will stagnate or even fall in population. Larger cities have more power to produce buildings and train units, and they are worth more points for your Colony. As such, you need to master Food output so that your Growth stays strong.

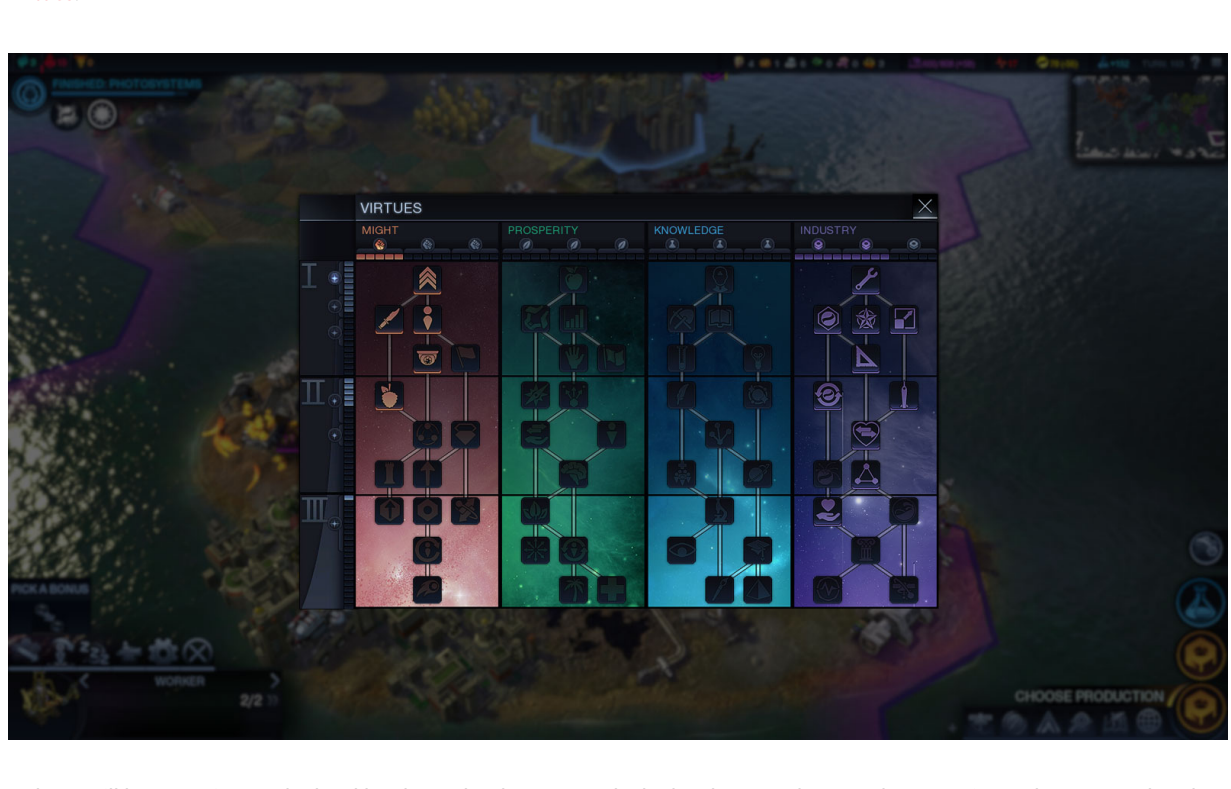
Cities get their Food from working some tiles (such as grassland), from improvements (e.g., farms and biowells), from internal trade routes, and by constructing certain buildings. The sooner you get a city's Growth moving, the better off you're going to be. Higher city populations have a major effect on what the city can do, and chopping down the number of turns to reach a high population is one of your best ways to expand quickly without being vulnerable. But you do have to watch your health, because the higher the population, the lower the Health gets. Build Health buildings to counteract this.

For new cities, get internal trade routes flowing immediately, and try to construct vivariums as soon as you can. This kick-starts your population growth. You must have two Food coming in for every citizen of the city, and Growth only occurs if you have excess Food coming in. The more you get, the sooner you earn another point of population. Go into your City Management screen, and highlight Food to learn more about what you're getting from that town.

Watch out when enemies or aliens get within three tiles of your city. Hostile units on your tiles, even when they're not attacking you, cause your citizens to abandon their work on those spaces. Too many incoming troops can cause even a great city to starve because they won't have anywhere to farm. If you want to thrive, protect both your city proper and also the land around it.

CULTURE

Culture is a familiar concept in *Civilization*. This resource lets you customize your bonuses through the virtue system, and it also helps your cities grow locally. The national tally of your Culture is what builds up and unlocks virtues. These cool abilities help your Colony in a variety of ways, so Culture is always going to be important. It won't matter where you're getting the Culture. All that matters to the virtue system is how many total points you have and how many Culture points are needed for the next reward. Larger empires have higher virtue costs, but this can also be controlled if you invest in the Knowledge branch of virtues.



Culture still has an effect at the local level. Local Culture controls the border growth for each city. Cities without any cultural generation take a very long time to get access to new tiles. This stagnates their Growth and prevents the Colony from gaining a large defensive border around the tiles that they're using. More Culture is always good, and at least a modest base generation of Culture in each city is sensible.

Old Earth relics are the least expensive Culture building in your arsenal. Make sure that all cities get one of those early in their careers, and then try to get more Culture once you've established the city's Food and Production systems.

You can even create massive Culture-generating cities if you have enough Technology and time. First, get plenty of citizens (the more, the better). Then, work on buildings that have artist slots and that generate Culture, as well. Use trade routes to beef up your Food supply so that you can spare more citizens for those artist slots. Then, have workers improve tiles with domes. These generate Culture and make your city even more of a hot spot for Culture vultures around the land.

WORKERS

Workers are your best tool for developing the full potential of cities. They move around the countryside, improving the output of tiles without more than an investment in time. Only a few of the higher-end improvements cost Energy per turn, so you usually get something for nothing when it comes to tile improvements.

All of the basic upgrades are available when you start the game. In *Civilization V*, you'd have to research a variety of techs to be able to upgrade many of the tiles around your home. That knowledge is already part of your Culture in this game. People know how to mine, farm, make plantations, and so forth. Instead, they only need new Technology for improving strategic resources or for using more advanced improvements that have even better bonuses.

Once you get a worker, look inside your border at the tiles that are being worked by your city. If you aren't sure which tiles are being used, go into the City Management screen and take a peek. Just note the tiles that have people on them, and take your worker to the tile that is generating the most bonuses. Improve it!

Tile improvement always yields something good, so you don't have to stress about which improvement to use until you really have gotten used to the system. At that point, you start to know what your Colony needs the most. "Anything would help here, but I'm going to need major Growth for this city." Build more farms. "This is my military heart. I'm going to pump out units here." Look for hills to mine. "I want to get rich." Settle near rivers or water tiles, and build generators.

Shoot for having at least one improved tile for every citizen in your cities, at least during the early game. This maximizes your cities' outputs by getting as many resources as possible out of all the tiles they work. The best tiles to improve are the ones with special resources on them. These have good yields already, and they get even better when improved.

As long as you can afford the upkeep, train a worker for every city you have. Developed cities should do the training for newer cities so that the smaller towns can save their Production for buildings. Send the workers over to the new city, and put them to work.

Don't neglect good road networks. These cost Energy to maintain but reward you with Energy when you connect cities to your capital. That's a great way to earn Energy while decreasing transit times between your cities. This is worth quite a bit unto itself during times of war or when you're simply shuffling people around.

Protect your workers by putting military units on the same tile. This doesn't count against unit stacking, so workers and their defenders can move together whenever you like. Enemies capture workers when attacking them, and you won't want to lose your friendly helpers.

If the threat is too great, hurry your workers into a city, and hide them inside there while the danger passes. You can't stack more than one worker in each city, but any spare workers can flee toward more distant locations. You won't want those guys near a battlefield, anyway; they'll get trashed or captured while your defenders are trying to save the city itself.

Military units are able to rip up tile improvements. This gets them Energy and leaves the tile damaged. The tile won't have usable roads anymore, and the yield bonuses from your improvements go away. Send a worker out to that tile when the enemy is dead or chased off, and use the Repair function to quickly restore function to the area. It's much easier to repair a tile than to improve it.

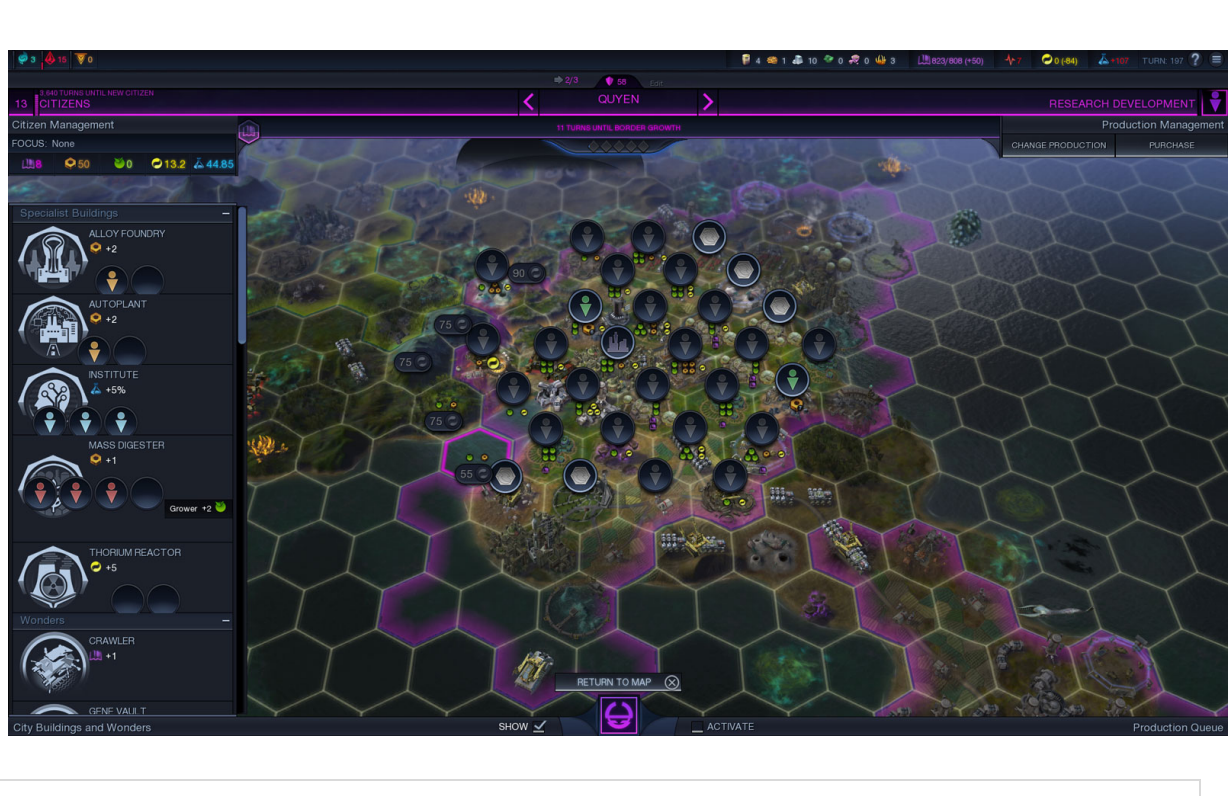
Tile Improvement List

Improvement	Location(s)	Bonuses
Farm	Desert, Grassland, Plains	+1 Food, +1 Food (from Vertical Farming), +1 Energy (from Vertical Farming), +1 Production (from Industrial Ecology), +1 Science (from Artificial Evolution)
Generator	Any basic terrain	+2 Energy, +1 Energy (from Augmentation), +1 Energy (from Organics), +1 Production (from Planetary Engineering)
Mine	Hills, Gold (resource), Copper (resource), Silica (resource), Titanium (strategic resource), Firaxite (strategic resource)	+1 Production, +1 Energy (from Biometallurgy), +1 Production (from Power Systems)
Quarry	Basalt (resource), Floatstone (strategic resource)	+1 Production, +1 Production (from Physics)
Plantation	Fiber (resource), Fruit (resource), Fungus (resource), Tubers (resource)	+1 Food or Production, +1 Food (from Photosystems)
Well	Petroleum (strategic resource), Geothermal (strategic resource), Xenomass (strategic resource)	Gathers resource, +1 Energy for Geothermal Well (from Power Systems), +1 Science for Xenomass Wells (from Alien Genetics), +1 Culture for Xenomass Wells (from Alien Domestication)
Work Barge	Coral (resource), Algae (resource)	+1 Food or Culture
Paddock	Chitin (resource), Resilin (resource)	+1 Food or Production, +1 Culture (from Alien Lifeforms)
Academy	Any non-resource, traversable tile	+3 Science, +1 Culture (from Protogenetics), -2 Energy (Maintenance)
Manufactory	Any non-resource, traversable tile	+3 Production, +1 Science (from Nanorobotics), -2 Health, -2 Energy (Maintenance)
Array	Any non-resource, flatland tile	+1 Science, +1 Energy, +1 Orbital Coverage, +1 Science (from Orbital Automation), -2 Energy (Maintenance)
Node	Any non-resource, traversable tile	+2 Energy, +1 Science (from Hypercomputing)
Dome	Any non-resource, traversable flatland tile	+2 Culture, City Hit Points +10, +1 Energy (from Biospheres), -2 Energy (Maintenance)
Biowell	Any non-resource, traversable tile	+1 Health, +2 Food, +1 Culture (from Alien Genetics), -2 Energy (Maintenance)
Terrascape	Any traversable tile	+2 Food, +2 Production, +2 Culture, -6 Energy (Maintenance), +1 Food, +1 Production and +1 Culture from Ecoscaping (Prosperity virtue)

SPECIALISTS

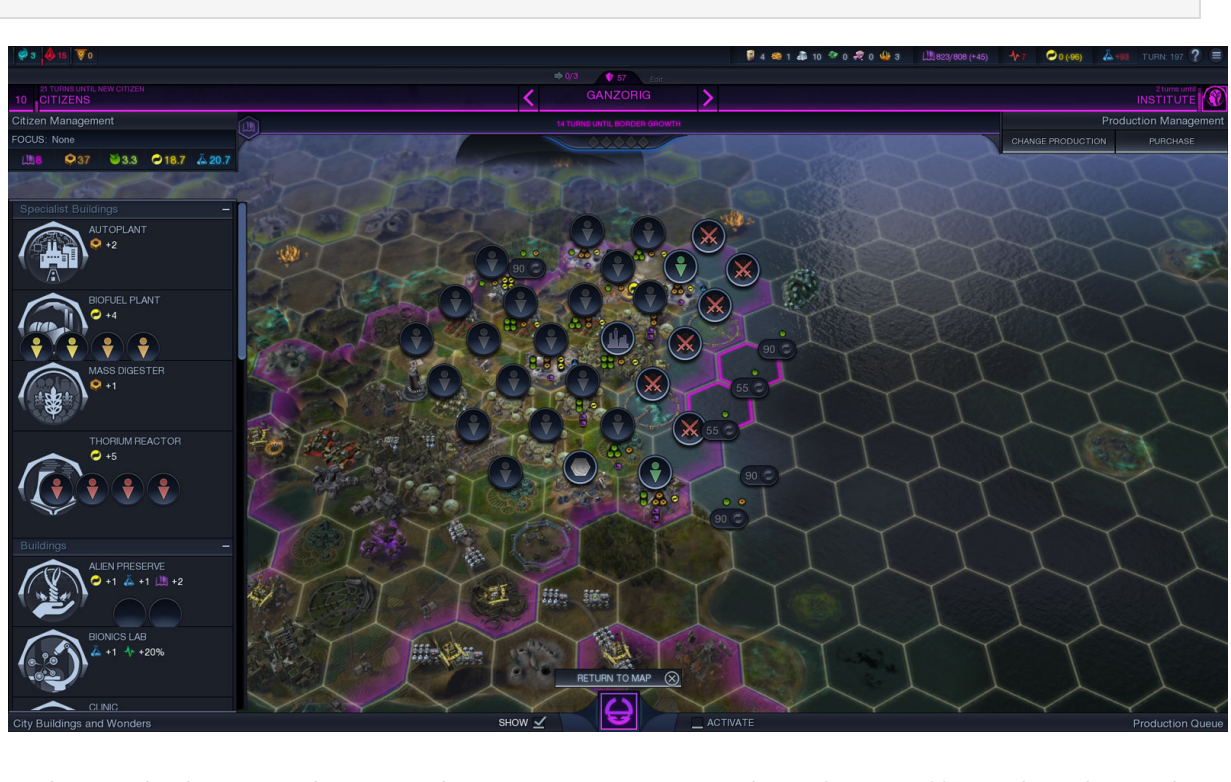
Specialists are city citizens that do not work on tiles. Instead, they go into slots inside the buildings that you've constructed. There are slots for a wide range of specialists, and each type adds different bonuses toward your city's yields.

Many specialist slots add two points from one resource to your city. This is powerful when you no longer have good tiles to work on because they're all used up, or if your city is located in a region without many good tiles in the first place. Usually, it's a combination of those problems. That's when specialists start to become the most useful; however, they're always good for specializing the output of a city. If you need resources to be of one specific type, it's great to use specialists to push as hard as possible for one type of yield.



Types of Specialists

Specialist	Bonus	Buildings
Artists	+2 Culture	Holosuite, CEL Cradle, Soma Distillery
Engineer	+2 Production	Autoplant, Alloy Foundry, Node Bank
Trader	+2 Energy	Thorium Reactor, Petrochemical Plant, Field Reactor, Biofuel Plant, Xenofuel Plant
Scientist	+3 Science	Xenonursery, Institute, Gene Smelter, Nanopasture
Grower	+2 Food	Cloning Plant, Mass Digester, Civil Creche
Unemployed	+1 Production	Don't have a citizen work a tile or become a specialist



To play around with your specialists, go into the City Management screen, and open the City Buildings and Wonders panel at the bottom of the screen. Scroll through the menu of buildings that appears, and click on slots to fill them with specialists or empty ones that are already being used.

To ensure that you don't pull people off of tiles that are being used well, click on occupied unproductive tiles before doing anything with your specialists. This turns those citizens into unemployed workers. Those are going to be the first ones assigned to your specialist slots, so you don't need to worry about which tile they're abandoning.

GARRISONS

Make sure to leave defensive units inside your cities, especially if there is any chance at all that aliens or hostile units can get there within the next few turns. These garrisoned units raise the Combat Strength of the city, making it harder for enemies to deal damage (and causing them to take more damage if they use melee attacks against the city).

Either use units with high Combat Strength for this role, or grab a powerful ranged unit. Though they won't contribute as much to the city's direct survival, ranged units deal damage from inside the city without having to worry about counterattacks. They'll keep their Health high and be able to attack every round that there are enemies nearby. Additionally, enemy targets won't be able to attack them. This is nice because many ranged units have weaker Combat Strength and can easily be killed in the open field.

Units with bonuses while in cities or inside friendly terrain are usually quite good as garrisons.

RESOURCES

Basic and strategic resources abound in the new world. Basic resources improve the yields of the tiles that they're on. Strategic resources do this, as well, but they're also added to your Colony's pool once their tiles have been improved. Your resource pool determines how many special units and buildings you can create. Orbitals often require Titanium and Petroleum. Affinity units usually need Xenomass, Floatstone, or Firaxite. Some buildings rely on Geothermal power.

The full value and use of all these resources is outlined in Chapter 07: *Terrain, Features, Resources, and Artifacts*.

SPIES RETURN

Spies, also known as Covert Agents, are a great way to gain resources and attack enemies without making it clear who is doing what. You earn these subtle tools after you research Computing and construct the Spy Agency.

Once earned, spies go where you tell them to go and do whatever you ask to aid the Colony. Used offensively, defensively, and for pure information gathering, these men and women put their lives on the line for you.

Spies are fully covered in Chapter 14: *Covert Operations: Spies, Damned Spies, and Statistics*.

THE FOG OF WAR AND TERRAIN EFFECTS

Always remember that the map is not the territory. Even when you scout well and think that you know what is ahead, there can be complications. This game uses a fog of war. If your units don't have visual range on a tile, it's a good idea to avoid moving through that area. Even if you've explored an area previously, you won't get constant updates on city foundings, tile improvements, or troop movement unless you keep your eyes on the target.

This is why it's very useful to have units at the edge of your borders (or beyond). Waiting safely inside your cities can lead to surprise attacks and very challenging defensive work. The more you watch the areas near your cities, the better informed you're going to be about future turns.

Spies whom you use in enemy cities extend your line of sight to that area. Use them extensively!

Units on hills or in open terrain have much better sight than anyone in thick terrain, such as forests. Remember when your vision is limited, and be careful about moving weaker units through such territory. Ambushes by aliens and your rivals can happen at any time.

Not only is rough terrain dangerous for breaking line of sight, it's also slower to move through. Hills, forests, and marshes are all tiles that take more than one Movement Point to get into. Factor that into your plans when moving people around, and don't get caught in a tile that you can't defend. Most tricky terrain is at least more defensive (granting Combat Strength bonuses if your units are attacked there). However, marshes leave your people even more exposed, so they're just awful in general. Fortify your units on the far side of marshes to lure attackers into coming after you on such exposed tiles.

Rivers are another example of tough territory to bypass. If you aren't using proper roads or magrails, your movement ends after crossing a river, even if you have tons of Movement Points to spare. It is also difficult to attack across a river, and you lose some of your Combat Strength for those attacks. Thus, it's a good idea to fortify units on the sides of rivers so that enemies must face a dangerous battle if they attack you there. And if they try to go around, they'll lose their movement when they try to get across the river elsewhere. Go ambush them before they recover!

Units

Overview

In *Civilization: Beyond Earth*, the term "unit" refers to anything that can move around the map. There are a number of different types of units in that could be in play: military units, workers, colonists, trade convoys, orbital units, etc.

Movement Speed is what determines how far you can move during each turn. Some terrain costs more than others, but you can hover over the area with your mouse to see how far each unit can go before you dedicate to any actions.

Combat Strength is the overall power of that unit if it's attacked or attacks another unit directly. All military units have this value. Melee units use their Combat Strength when attacking or defending. Ranged units use their Combat Strength when defending against incoming ranged or melee attacks.

Ranged Combat Strength is used to determine damage when making indirect ranged attacks. It is not used for defensive purposes.

Range is the distance that a ranged unit can attack an enemy; it's measured in hexes. Note that this can be even a single hex. That may sound weird, but it still has a function. Ranged attacks are not countered, so the unit that makes them will not take damage from the enemy that they're attacking. That is why even a one-tile ranged attack is useful! It lets you deal free damage against a target.

Hit Points are a measure of a unit's (or city's) Health. They range from 0 to 100. Some types of damage inflict a flat amount of HP damage; standing in miasma is a good example, as it does 10 damage per turn. Other attacks are based on the ratio between the attacker and the defender and may do as little as 1 damage or as much as 100 damage!

When a unit's Hit Points reach 0, it is destroyed. Health is restored by ending a turn without moving or fighting. This restores 10 Health normally, 20 Health if done inside your territory, or 30 Health if your unit is inside a city. Additional Health may be restored depending on the technological choices that you've made with your civilization.

BONUSES AND PENALTIES IN COMBAT

Units aren't only measured by their Combat Strength. Multiple factors go into determining how hard your people are to kill. Terrain usually protects the defenders (as with forests and hills), though it can expose people to attack, as well (when your people are in marshes).

There are also bonuses granted when your units flank enemies by circling them in on more than one side. This sometimes leads to several bonuses if your units also have traits that give them advantages for being close to other allied units.

Flanking Specifics

Units receive a "flanking" attack bonus of 10% for each unit adjacent to the target. Some promotions and virtues give additional bonuses beyond the basic flanking bonus. This is a major way to overcome entrenched enemies or superior forces. If you outnumber your enemy, you can often burn them down, even when their troops are higher in tech. Encircle them, and take them out.

Spend time getting to know each of your military units, and find out what gives them the best bonuses before putting them into a large-scale war. If a unit has bonuses when it's not near allies, then use it as a scout and raiding unit, dashing into enemy territory and dealing as much damage as it can.

For units that are meant to go together, form a line. Have your tougher units stand in front, and protect valuable ranged and siege units by placing them in the rear. Watch your sides for flanking attacks by more mobile troops.

EXPERIENCE POINTS AND VETERANCY

Units that attack or defend gain Experience, even if they're fighting against aliens or cities. This Experience (XP) accrues until your unit gains a level of Veterancy. You are then given the chance to heal the unit for 50 Hit Points instantly or to grant that specific unit a bonus to their Combat Strength for the rest of their days. In the middle of a war, it's sometimes better to take the immediate Health so that your experienced unit doesn't simply die off. During more peaceful times, or when you have a chance to retreat and rest, it's better to take the bonus Combat Strength!

Alien Experience Limits

Once a unit has received 30 XP, it no longer gets any additional XP for fighting alien lifeforms.

Experience Table

- **Making a melee attack**: 5 XP
- **Defending against a melee attack**: 4 XP
- **Making a ranged attack**: 2 XP
- **Defending against a ranged attack**: 2 XP

Leveling Table

Level	Total XP Required
I	0
II	10
III	30
IV	60

UNIT STACKING

As with *Civilization V*, you cannot stack military units on top of each other. A given tile can only house one land-based military unit and a single non-military unit. This means that you must prepare attacks carefully so that your military doesn't get bottlenecked in a long column that is easily destroyed with ranged fire, city defenses, and orbital bombardment.

Stack good defensive units on top of workers and colonists to protect them from aliens and raiders.

Use lines of melee units to screen against attack, and have your ranged units follow directly behind this line so that they can fire over their allies to assist in warfare.

You can move your units over each other, so long as there is space for the mobile unit to reach the far side of the middle unit. That makes rough terrain especially nasty when you're moving a large group; many troops won't have enough Movement to go through another person and on to the next tile. Thus, you need to get your formation in place before moving into the nasty area.

UNIT CATEGORIES

There are several categories of units. Knowing the type of unit you're looking at is a quick way to remember what their general use is both on and off of the battlefield.

Melee Units

Melee units are land-based units that can attack enemies in adjacent land hexes. These are usually solid troops that are capable of assaulting areas or defending. They lack Range and Flexibility in their roles but are often the core of your forces.

Ranged Units

Ranged units are units that can attack enemies in adjacent hexes and in hexes one or more spaces away by bombardment. Ranged units are often weaker in their total damage output and are almost worthless when attacked directly in melee. However, they are vital in sieges or large field battles because of their ability to fire over allies. This contributes damage against an enemy without sustaining counterattacks. Ranged units are amazing when they're protected by a city or by a screen of melee units.

Naval Units

Naval units move only on water hexes. They cannot enter land hexes, except for coastal cities. They patrol the seas, bombard cities and land units, and fight off the horrors that lurk deep in the ocean.

Air Units

Air units are airborne craft that provide ranged support to your units by bombing cities and other units. They can also work to interdict enemy aircraft so that you maintain aerial control.

Hover Units

Hover units levitate over the battlefield. They move quickly over any terrain and can even fly over canyons and water tiles. They are some of the most dangerous and flexible raiders in the game. Some of these units are melee attackers and others are ranged, so think of this as a secondary category of unit.

Non-Combat Units

These are weaker units that have little way of defending themselves. Use your military to escort these units around the map, letting them settle cities, improve tiles, and search for special sites. Never leave these units near aliens or enemy units unless you're trying to lure someone into attacking you.

Orbital Units

Orbital units are temporary orbiting units. They are deployed on a layer above the battlefield. Each type of orbital provides different bonuses to your Colony. Some enhance cities by adding resources to the tiles underneath them. Others manipulate miasma, and some are battle satellites that attack the ground underneath them.

After an orbital's duration expires, the unit falls from the sky and crashes onto the ground below.

An orbital unit's effect is applied to an area below it, called the effect area or "skirt." For passive effects (say, a Food increase for tiles), this skirt is the area that receives the effect. For activated abilities (for example, a ground bombardment), this is the range where the ability may be used.

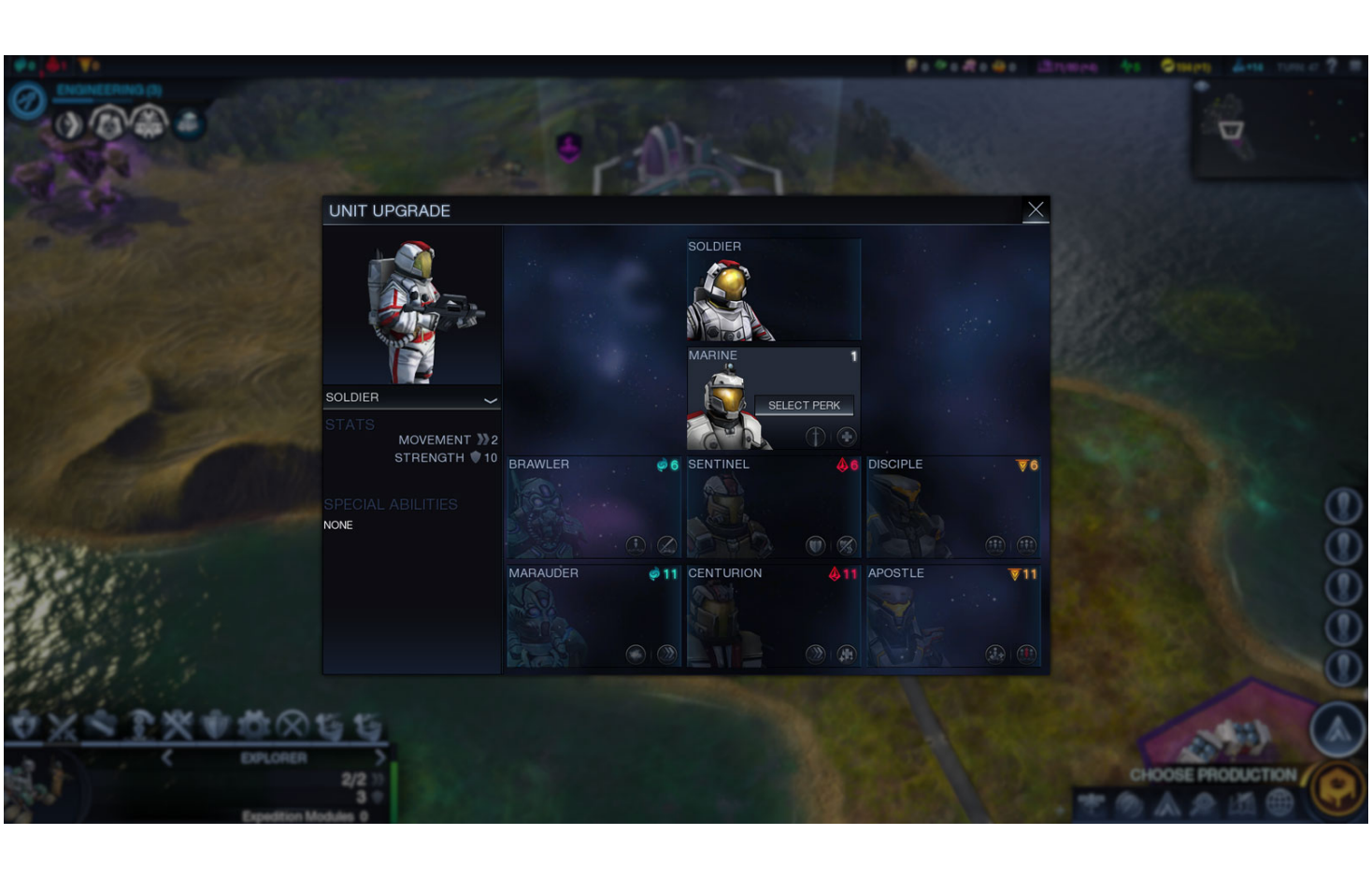
Affinity Units

Each Affinity has several unique military units. These units are tied to that Affinity, and they have bonuses that are often quite specific (giving them a niche that is exploitable in warfare to get an edge over your opponents).

Often, Affinity units have higher stats than generic units of the same tech level, but they cannot be specialized in as broad a manner. This means that your opponents are going to know what they're facing.

UNIT UPGRADES

Unit Upgrades are based on Affinity level, rather than Technology, in this version of *Civilization*. Every Unit has several tiers of Upgrades they may reach, each with a higher Affinity level requirement. Once the necessary level has been reached, the Upgrade becomes available for the player to choose. Upgrades are applied to every unit of that type instantly, rather than on a unit-to-unit basis, without any cost or returning a unit to the player's borders. This causes sudden jumps in military power from time to time, as colonies hit certain Affinity levels and see their armed forces upgrade overnight.



When a Unit reaches a new Upgrade tier, they receive an increase to their base combat or ranged strength. Sometimes this will be accompanied by an additional bonus, such as increased movement speed or extra range. There is also a choice between one of two perks for the Unit, making all Units of that type more specialized.

All generic Units in the game have an extensive upgrade path, with four tiers. The third and fourth tiers are Affinity-specific, requiring you to have a dominant Affinity. Affinity-specific Unit types have only two tiers. These Units are much stronger and have a more specialized role to start with. Their Upgrades allow for hybridized Affinity levels, as well as the Unit's dominant Affinity.

UNIT ACTIONS

Most unit actions are self-explanatory, but there are a few tactical uses of these actions that are worth mentioning. Use Alert instead of Fortify if you want to place a unit in an area as a scout. This lets you see if anyone is trying to get through your territory. It's superior for noticing buildups along your borders. Fortify and Alert both provide bonuses to your defenders when they're attacked, so there aren't any downsides to using Alert instead of Fortify. However, using Fortify instead of Alert causes the unit to stay Fortified until the player wakes the unit.

Fortify Until Healed is a great command for restoring units after battle or when they're stopping near home for some rest. Use this so that you don't have to hit the spacebar and skip through all of your wounded units.

Pillage destroys improvements on your current tile. This gets your Colony a small Energy bonus, and it disrupts whatever your rival has in that area. Use this to destroy roads so that enemies can't respond to your invasions as quickly. For the best scenario, have a fast unit race into enemy territory at the beginning of a war, destroy a road that's in rough terrain, and laugh as your opponent bottlenecks all of their responding forces well away from the sight of the actual fighting. Even if you lose your raiding unit in the process, you're going to come out ahead.

Rebase aircraft so that they're always close to the front (whichever front you have, that is). It doesn't take long to reposition your aircraft, so make the most use of them even if you only have a few airborne units. When one war ends, rebase them until they're in position for either defense or your next attack.

ORBITAL MECHANICS

Clicking on the "Orbital View" button opens the Orbital Layer map. This map mirrors the ground below and shows you which tiles are influenced by orbitals that are already deployed. Look for the blue shadow beneath your orbitals to see the tiles in question.

Orbitals cannot be deployed close together. They cannot stack, nor can they share a skirt. Anything that is already influenced by one orbital cannot also be influenced by a second orbital of another type. This prevents you from having all sorts of crazy bonuses by surrounding cities with all of your orbital types.

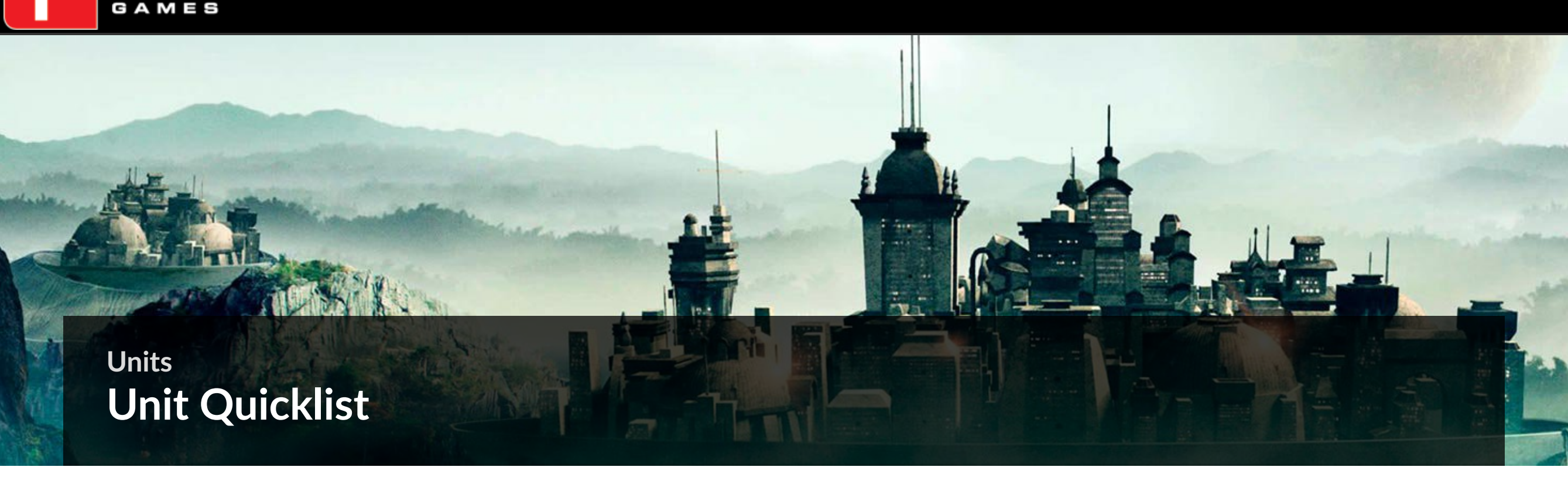
It's usually very efficient to construct orbitals in one or two cities within your Colony. There are buildings that make orbitals easier to construct, and placing these in all of your cities is wasteful. Also, cities share their total Orbital Coverage. Anything that you launch from your orbital city can be sent to any tile that is within your Orbital Coverage. This allows your orbital city to supply the entire Colony with any effects that it needs for Growth, defense, or whatever else comes up.

Note that most orbitals require a heavy investment of strategic resources (Petroleum and Titanium being the two biggies). If you like using satellites frequently, do your best to secure sites that have these resources and improve them as soon as you can.

Being up in the sky is fairly safe; most units can't attack your orbitals. However, cities and certain special units are able to launch orbital attacks. Don't deploy your satellites directly over enemy artillery or cities unless you really have to; your opponent won't waste much time in shooting your birdies out of the sky.

By the same token, you shouldn't deploy orbitals too close to your rivals' borders. This is a diplomatic gaffe, and it's likely to sour relations with the Colony in question.

Orbitals fall out of the sky when their duration is over, but that's not entirely the end of their journey. You can use crashed satellites for additional resources. Send an explorer to the site in question, and start an expedition. You sometimes recover some cool stuff from these runs! The only cost is that you might have to repair the tile improvements that the orbital crashed into. A minor nuisance, at most.



Units

Unit Quicklist

Unit Quicklist (Costs are based on Standard Speed)

Unit	Cost	Combat Type	Combat Strength	Ranged Combat Strength	Range	Movement	Abilities	Requirements	Prerequisite Tech
Aegis	180	Ranged unit	20	40	2	2	N/A	Titanium, Floatstone	Surrogacy
Ambassador	100	Ranged unit	14	32	2	2	+1 attack each turn, can move after attacking, +20% when attacking cities, all terrain costs 1 Movement, levitates, choice of attacking over terrain obstacles or -1 Setup needed before attacking	N/A	Computing
All-Seer	200	Orbital unit	N/A	N/A	1	N/A	Removes covert agents and Intrigue, 30 turns	N/A	Dark Networks
ANGEL	370	Melee and ranged unit	88	88	1	2	N/A	Firaxite	Neural Uploading
Apostle	100	Melee unit	48	N/A	N/A	2	Choice of 10 HP Healing for adjacent units per turn or 30% bonus when flanking	N/A	Habitation
Arbiter	120	Ranged unit	16	36	2	4	Choice of 15% when next to a friendly unit or 30% when defending	N/A	Computing
Armor	60	Melee unit	18	N/A	N/A	3	+30% when attacking fortified units.	N/A	Engineering
Artillery	100	Ranged unit	5	22	2	3	+10% when attacking cities, choice of 30% when attacking cities or 20% when attacking land units	N/A	Computing
Bastion	160	Support unit	36	N/A	N/A	4	+1 capacity for aircraft, choice of 20% for onboard aircraft when defending and 20% for onboard aircraft when attacking or +1 capacity as a base for aircraft	N/A	Fabrication
Battlesuit	160	Melee unit	40	N/A	N/A	2	N/A	Titanium	Servomachinery
Brawler	100	Melee unit	24	N/A	N/A	2	Choice of 40% bonus Strength when not adjacent to any friendly units or 20 HP attack to adjacent enemy units on death		Habitation
Carrier	160	Support unit	18	N/A	N/A	3	Base for aircraft	N/A	Fabrication
CARVR	220	Melee unit	50	N/A	N/A	2	N/A	Firaxite	Autogyros
Centaur	100	Ranged unit	8	22	2	2	Choice of +1 Movement or +40% when defending against ranged attacks	N/A	Computing
Centurion	100	Melee unit	48	N/A	N/A	2	Choice of +1 Movement or automatic Healing every turn	N/A	Habitation
CNDR	155	Melee unit	38	N/A	N/A	2	N/A	Firaxite	Tactical Robotics
Cobra	60	Melee unit	50	N/A	N/A	4	All terrain costs 1 Movement, levitates, choice of +30% when attacking and in miasma or 30% when defending and in miasma	N/A	Engineering
Colonist	186	Non-combat unit	N/A	N/A	N/A	2	Creates an outpost	N/A	Pioneering
Combat Rover	140	Melee unit	12	N/A	N/A	3	N/A	N/A	Engineering
Cruiser	120	Ranged Unit	6	24	2	4	Choice of 20% against land units or 20% against sea units	N/A	Computing
Destroyer	120	Ranged Unit	16	36	2	4	Choice of 20% when attacking or 5% per unused Movement	N/A	Computing
Deep Space Telescope	200	Orbital unit	N/A	N/A	N/A	N/A	+25% Science to cities in range, contributes to Contact victory, 60 turns	N/A	Orbital Automatic
Devastator	100	Ranged unit	14	54	2	2	+50% when attacking cities, all terrain costs 1 Movement, levitates, choice of attacking over terrain obstacles or +1 Range when unit has not moved	N/A	Computing
Disciple	100	Melee unit	24	N/A	N/A	2	Choice of 20% bonus Strength when adjacent to a friendly unit or 8% bonus per adjacent friendly unit	N/A	Habitation
Dragoon	100	Melee unit	58	N/A	N/A	3	All terrain costs 1 Movement, levitates, choice of +1 Movement or 50% bonus when attacking cities	N/A	Engineering
Dreadnaught	120	Ranged Unit	32	62	2	4	Choice of +1 Range or +1 Movement	N/A	Computing
Drone	80	Flying alien unit	10	N/A	N/A	3	Alien unit	N/A	N/A
Earthling Settler	N/A	Special unit	N/A	N/A	N/A	1	Required for Promised Land victory	N/A	N/A
Educator	100	Ranged unit	8	32	2	2	+20% when attacking cities, choice of +30% when attacking wounded units or +20% when next to a friendly unit	N/A	Computing
Evolved Aegis	140	Ranged unit	36	40	2	2	1 more attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +50% when attacking fortified units	N/A	Surrogacy
Evolved ANGEL	190	Melee and ranged unit	84	84	2	2	1 more attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +50% when attacking fortified units	Firaxite	Surrogacy
Evolved Battlesuit	140	Melee unit	82	N/A	N/A	2	+30% when defending, choice of +20% when flanking or 40% when not next to any friendly unit	N/A	Servomachinery
Evolved CARVR	150	Melee unit	86	N/A	N/A	2	+15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +50% when attacking fortified units	Firaxite	Autogyros
Evolved CNDR	120	Melee unit	74	N/A	N/A	2	+8% per adjacent friendly unit, choice of +30% when in friendly territory or 50% when fortified	Firaxite	Tactical Robotics
Evolved LEV Destroyer	225	Ranged unit	70	108	2	2	+30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or +50% when defending against Range	Floatstone	Tactical LEV
Evolved LEV Tank	180	Ranged unit	46	84	2	2	+1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or Movement after attacking	Floatstone	Mobile LEV
Evolved Rocktopus	150	Orbital unit	N/A	78	2	1	+1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or +1 Movement	Xenomass, Floatstone	Designer Lifeform
Evolved SABR	160	Ranged unit	24	98	3	2	+1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup needed before attacking or +60% when attacking wounded units	Firaxite	Synthetic Though
Evolved Xeno Cavalry	160	Melee unit	70	N/A	N/A	3	All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +40% when not adjacent to any friendly unit	Xenomass	Alien Domesticati
Evolved Xeno Swarm	100	Melee unit	58	N/A	N/A	2	+20% when in Miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +40% when in miasma and attacking and +40% when in miasma and defending	Xenomass	Alien Adaptation
Evolved Xeno Titan	250	Melee unit	100	N/A	N/A	2	+50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +40% when not next to any friendly unit	Xenomass	Alien Evolution
Executor	100	Ranged unit	18	30	2	2	1 extra attack every turn, can move after attacking, choice of 8% bonus per adjacent friendly unit or +1 Range when no Movement Points are spent	N/A	Physics
Explorer	40	Melee unit	3	N/A	N/A	2	Create an expedition site	N/A	Habitation
Guardian	100	Ranged unit	12	30	2	2	Choice of 50% bonus when stationed inside a city or 10% per unused Movement	N/A	Physics
Gunboat	120	Naval unit	6	16	2	3	N/A	N/A	Computing
Gunner	100	Ranged unit	6	18	2	2	Choice of 5 HP Healing (when not embarked) or 30% defensive Strength vs. ranged units	N/A	Physics
Herald	100	Flying unit	N/A	36	5	N/A	+50% when air sweeping, choice of +50% when air sweeping or 20% when attacking wounded units	N/A	Robotics
Holomatrix	130	Orbital unit	N/A	N/A	N/A	N/A	+2 Culture on tiles in coverage, reduced Intrigue, 60 turns	Petroleum, Floatstone	Civil Support
Hydra	160	Support unit	44	N/A	N/A	3	+1 Movement, +1 capacity for aircraft, choice of 10 HP Healing for onboard aircraft every turn or +1 capacity as a base for aircraft	N/A	Fabrication
Kraken	100	Alien naval unit	70	N/A	N/A	2	N/A	N/A	N/A
Lancer	60	Melee unit	40	N/A	N/A	3	Choice of 10% per unused Movement or 20% when attacking	N/A	Engineering
LEV Destroyer	380	Ranged unit	50	84	2	2	Levitates	Floatstone	Tactical LEV
LEV Tank	300	Ranged unit	28	52	2	2	Levitates, Anti-Orbital Strike	Floatstone	Mobile LEV
Lasercom Satellite	130	Orbital unit	N/A	N/A	N/A	N/A	+15% Science in covered cities, 60 turns	Petroleum, Titanium	Orbital Networks
Locust	100	Flying unit	N/A	36	5	N/A	+50% when air sweeping, choice of +30% against air units or +2 Range when unit has full Health	N/A	Robotics
Manticore	100	Alien ranged unit	4	12	2	1	N/A	N/A	N/A
Marauder	100	Melee unit	64	N/A	N/A	2	Choice of 30% bonus attacking in miasma or 30% bonus defending in miasma	N/A	Habitation
Marine	100	Melee unit	16	N/A	N/A	2	Choice of 20% bonus when attacking or 5 HP Healing per turn when not embarked	N/A	Habitation
Minotaur	100	Ranged unit	14	48	2	2	+1 Range, +50% when attacking cities, all terrain costs 1 Movement, levitates, choice of +50% chance to scatter attacked unit or -1 Setup before attacking	N/A	Computing
Miasmic Condenser	130	Orbital unit	N/A	N/A	N/A	N/A	Generate miasma on tiles in covered area, 10 turns	Petroleum, Xenomass	Alien Ecology
Miasmic Repulsor	80	Orbital unit	N/A	N/A	N/A	N/A	Clear miasma from tiles in covered area, 10 turns	N/A	Ecology
Missile Rover	100	Ranged unit	3	12	2	2	N/A	N/A	Computing
Needlejet	100	Flying unit	N/A	20	4	N/A	+1 Range, +20 when air sweeping, choice of +30% when intercepting or +15% against land and sea units	N/A	Robotics
Orbital Fabricator	130	Orbital unit	N/A	N/A	N/A	N/A	+1 Production on tiles in covered area, generates strategic resources on unimproved tiles, 60 turns	Petroleum, Titanium	Geoscaping
Orbital Laser	130	Orbital unit	N/A	50	2	N/A	60 turns	Petroleum	Cybernetics
Overseer	100	Ranged units	12	30	2	2	Choice of 20% bonus when adjacent to a friendly unit or 40% bonus when attacking a city	N/A	Physics
Phasal Transporter	130	Orbital unit	N/A	N/A	N/A	N/A	One-way unit teleportation from city to covered tile, 30 turns	Petroleum, Titanium	Cybernetics
Planet Carver	200	Orbital unit	N/A	120	2	N/A	30 turns	Petroleum, Titanium	Astrodynamics
Poseidon	120	Naval unit	32	72	2	4	+1 Range, choice of Healing even when outside friendly territory or 50% chance to scatter attacked unit to another tile	N/A	Computing
Predator	100	Flying unit	N/A	60	5	N/A	+1 Range, +90% when air sweeping, choice of +30% against air units or +25% against land and sea units	N/A	Robotics
Prime Aegis	140	Ranged unit	32	40	2	2	1 attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +20% when adjacent to a friendly unit	Titanium, Floatstone	Surrogacy
Prime ANGEL	190	Melee and ranged unit	84	84	2	2	Can move after attacking, all terrain costs 1 Movement, choice of +30% when attacking or +40% when flanking	Firaxite	Neural Uploading
Prime Battlesuit	140	Melee unit	82	N/A	N/A	2	+30% when defending, choice of +20% when flanking or 20% when next to a friendly unit	Titanium	Servomachinery
Prime CARVR	150	Melee unit	86	N/A	N/A	2	+15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +20% when next to a friendly unit	Firaxite	Autogyros
Prime CNDR	120	Melee unit	74	N/A	N/A	2	+8% per adjacent friendly unit, choice of +30% when in friendly territory or 20% when next to a friendly unit	Firaxite	Tactical Robotics
Prime LEV Destroyer	225	Ranged unit	70	108	2	2	+30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or -1 Setup before attacking	Floatstone	Tactical LEV
Prime LEV Tank	180	Ranged unit	46	84	2	2	+1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or attacking over terrain obstacles	Floatstone	Mobile LEV
Prime Rocktopus	150	Orbital unit	N/A	78	2	1	+1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or manually deorbit at any time	Xenomass, Floatstone	Designer Lifeform
Prime SABR	160	Ranged units	24	98	3	2	+1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup before attacking or +12% per adjacent friendly unit	Firaxite	Synthetic Though
Prime Xeno Cavalry	130	Melee unit	70	N/A	N/A	3	All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +30% when flanking	Xenomass	Alien Domesticati
Prime Xeno Swarm	100	Melee unit	58	N/A	N/A	2	+20% when in miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +20% when adjacent to a friendly unit	Xenomass	Alien Adaptation
Prime Xeno Titan	250	Melee unit	100	N/A	N/A	2	+50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +20% when next to a friendly unit	Xenomass	Alien Evolution
Prophet	60	Melee unit	40	N/A	N/A	3	Choice of 30% when attacking wounded units or 20% when adjacent to a friendly unit	N/A	Engineering
Punisher	100	Ranged unit	8	32	2	2	+30% when attacking cities, choice of +30% when attacking cities or +20% when attacking	N/A	Computing
Raider	100	Flying unit	N/A	36	5	N/A	+50% when air sweeping, choice of +30% against air units or 25% against land and sea units	N/A	Robotics
Ranger	100	Ranged unit	3	8	2	2	N/A	N/A	Physics
Raptor Bug	120	Alien unit	15	N/A	N/A	3	N/A	N/A	N/A
Redeemer	60	Melee unit	68	N/A	N/A	3	+1 Movement, all terrain costs 1 Movement, levitates, choice of +30% when flanking or ignore zones of control when moving	N/A	Engineering
Rocktopus	280	Orbital unit	N/A	60	2	2	10 turns	Xenomass, Floatstone	Designer Lifeform
SABR	320	Ranged unit	16	58	3	1	N/A	Firaxite	Synthetic Though
Sea Dragon	50	Alien naval unit	18	N/A	N/A	4	N/A	N/A	N/A
Sentinel	100	Melee unit	30	N/A	N/A	2	Choice of 30% defensive Strength or 10% Strength per unused Movement	N/A	N/A
Seraph	100	Flying unit	N/A	60	5	N/A	+1 Range, +90% when air sweeping, choice of +1 Interception every turn or 1 rebase costs no Movement	N/A	Robotics
Shepherd	160	Support unit	44	N/A	N/A	3	+1 Movement, +1 capacity for aircraft, choice of +2 Range for onboard aircraft or +1 capacity as a base for aircraft	N/A	Fabrication
Shredder	100	Ranged unit	18	66	2	2	Choice of being able to move after attacking, or all terrain costs 1 Movement	N/A	Physics
Shrike	100	Flying unit	N/A	60	5	N/A	+1 Range, +90% when air sweeping, choice of +30% chance to scatter attacked units or +25 HP Healing after killing an enemy unit	N/A	Robotics
Siege Worm	70	Alien melee unit	60	N/A	N/A	1	Destroys tiles by moving	N/A	N/A
Solar Collector	80	Orbital unit	N/A	N/A	N/A	N/A	+1 Energy in covered tiles, +20% Energy Production in covered cities, 60 turns	N/A	Photosystems
Soldier	100	Melee unit	10	N/A	N/A	2	N/A	N/A	Habitation
Striker	100	Ranged unit	12	30	2	2	Choice of 25 HP Healing after killing an enemy unit or 30% Strength when attacking fortified units	N/A	Physics
Tacjet	100	Flying unit	N/A	10	4	N/A	Deploys from a carrier or base	N/A	Robotics
Tacnet Hub	80	Orbital unit	N/A	N/A	N/A	N/A	20% offense and defense bonus and 5 HP Healing per turn to friendly units in covered area, 60 turns	N/A	Communications
Triton	120	Naval unit	16	46	2	3	+1 Movement, choice of 30% when not next to a friendly unit or 40% when attacking cities	N/A	Computing
Trade Convoy	60	Non-combat unit	N/A	N/A	N/A	2	Create a land trade route	N/A	Pioneering
Trade Vessel	70	Non-combat unit	N/A	N/A	N/A	3	Create a sea trade route	N/A	Pioneering
True Aegis	140	Ranged unit	32	40	2	2	+1 attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +60% when inside a city	Titanium, Floatstone	Surrogacy
True ANGEL	190	Melee and ranged unit	84	84	2	2	Can move after attacking, all terrain costs 1 Movement, choice of +30% when attacking or +15% per unused Movement	Firaxite	Neural Uploading
True Battlesuit	140	Melee unit	82	N/A	N/A	2	+30% when defending, choice of +20% when flanking or 30% when attacking	Titanium	Servomachinery
True CARVR	150	Melee unit	86	N/A	N/A	2	+15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +30% when attacking	Firaxite	Autogyros
True CNDR	120	Melee unit	74	N/A	N/A	2	+8% per adjacent friendly unit, choice of +30% when in friendly territory or 30% when defending	Firaxite	Tactical Robotics
True LEV Destroyer	225	Ranged unit	70	108	2	2	+30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or +15 HP splash damage to enemy units next to target	Floatstone	Tactical LEV
True LEV Tank	180	Ranged unit	46	84	2	2	+1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or +10% per unused Movement	Floatstone	Mobile LEV
True Rocktopus	150	Orbital unit	N/A	78	2	2	+1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or +2 Orbital Coverage provided by this unit	Xenomass, Floatstone	Designer Lifeform
True SABR	160	Ranged unit	24	98	3	2	+1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup before attacking or +30% when attacking	Firaxite	Synthetic Though
True Xeno Cavalry	130	Melee unit	70	N/A	N/A	3	All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +10% per unused Movement	Xenomass	Alien Domesticati
True Xeno Swarm	100	Melee unit	58	N/A	N/A	2	+20% when in miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +30% when attacking	Xenomass	Alien Adaptation
True Xeno Titan	250	Melee unit	100	N/A	N/A	2	+50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +50% when attacking cities	Xenomass	Alien Evolution
Vindicator	120	Ranged unit	32	72	2	4	+1 Range, choice of +1 capacity as a base for aircraft or can move after attacking	N/A	Computing
Viper	60	Melee unit	40	N/A	N/A	3	Choice of 40% bonus when alone or pillaging costs no Movement and gives 25 HP Healing	N/A	Engineering
Warden	100	Ranged unit	18	66	2	2	Choice of attacking over terrain obstacles or +1 Range when no Movement Points spent	N/A	Physics
Weather Controller	130	Orbital unit	N/A	N/A	N/A	N/A	+1 Food from tiles in covered area, generates basic resources on unimproved tiles in covered area, 60 turns	Petroleum, Titanium	Climate Control
Wolf Beetle	70	Alien unit	8	N/A	N/A	2	N/A	N/A	N/A
Worker	60	Non-combat unit	N/A	N/A	N/A	2	Improves tiles	N/A	Habitation
Xeno Cavalry	210	Melee unit	48	N/A	N/A	3	N/A	Xenomass	Alien Domesticati
Xeno Swarm	120	Melee unit	34	N/A	N/A	2	N/A	Xenomass	Alien Adaptation
Xeno Titan	400	Melee unit	96	N/A	N/A	2	N/A	Xenomass	Alien Evolution

PRIMA GAMES

Units

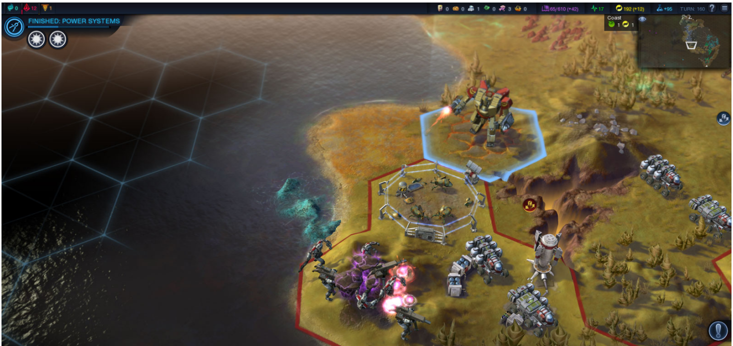
Combat Unit Master List

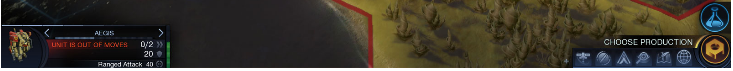
A Note About Production Costs

Note that all Production costs are for Standard game speed. These costs change if you manipulate your game settings, so it's smart to view all of the costs as relative compared to each other. Faster or slower game pacing influences all units equally, so they're always going to be similar in regard to each other, even when the Production costs are wildly different.

▣ AEGIS

- **Cost**: 180 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: Combat 20, Ranged Combat 40
- **Prerequisite Tech**: Surrogacy

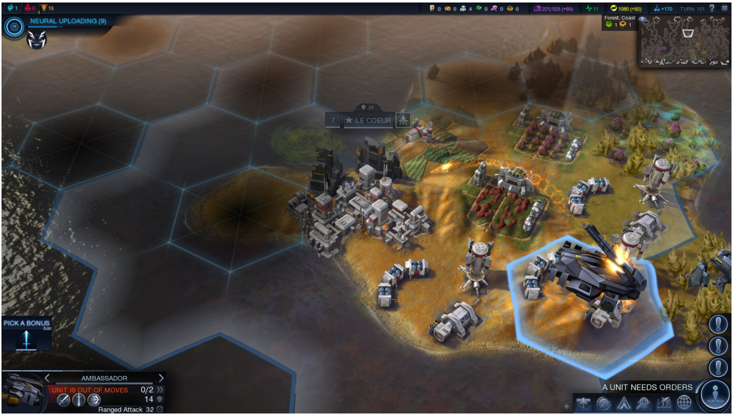

FINISHED: POWER SYSTEMS
Coast
TURN: 160


AEGIS
UNIT IS OUT OF MOVES
0/2
20
Ranged Attack 40
CHOOSE PRODUCTION

The Aegis is a unique Purity walker that is effective at range. Use these if you'd like to have a Ranger-styled unit with even more punch. They get more specialized at later affinity levels and become very effective at pulling down wounded units. Aegis units require Floatstone and Titanium to construct, so they aren't cheap.

AMBASSADOR

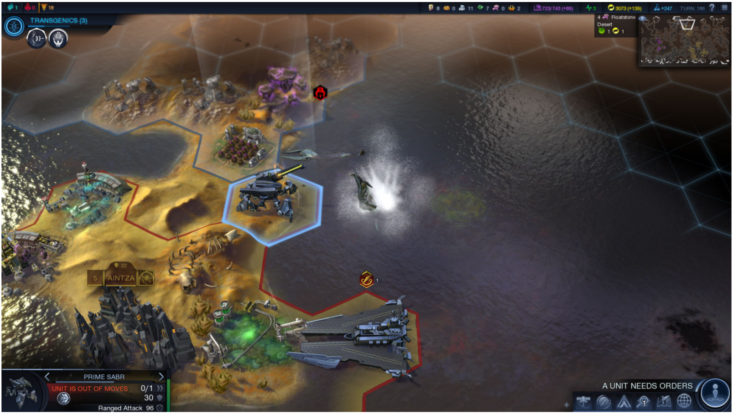
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 14 Combat, 32 Ranged Combat, +1 attack each turn, can move after attacking, +50% when attacking cities, all terrain costs 1 Movement, levitates over land and sea. Choice of attacking over terrain obstacles or -1 Setup needed before attacking.
- **Prerequisite Tech**: Computing


NEURAL UPLOADING (9)
7
LE COEUR
TURN: 151
PICK A BONUS
AMBASSADOR
UNIT IS OUT OF MOVES
0/2
14
Ranged Attack 32
A UNIT NEEDS ORDERS

Ambassadors are wonderful Supremacy units for shelling cities. They get into position without many problems because of their levitation and can unleash multiple attacks under the best circumstances. Enemies must be extremely careful when you have Ambassadors on the field; they make it much easier to siege large cities. Expect rivals to field larger armies to hold you off. Use that to your advantage by drawing their troops away from their defenses so that you can use ranged attacks, orbitals, and other nasty tricks to winnow down their numbers.

ANGEL

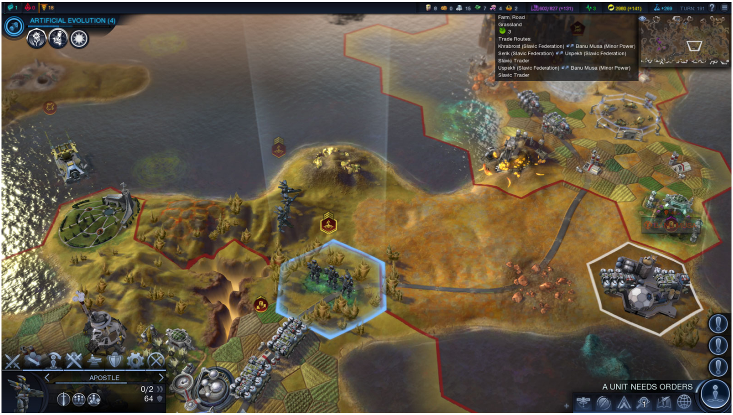
- **Cost**: 370 Production
- **Movement**: 2
- **Range**: 1
- **Abilities**: 88 Combat, 88 Ranged Combat
- **Prerequisite Tech**: Neural Uploading


TRANSGENICS (3)
TURN: 186
Floatstone
Desert
AINTZA
PRIME SABR
UNIT IS OUT OF MOVES
0/1
30
Ranged Attack 96
A UNIT NEEDS ORDERS

ANGELs are multi-role combat walkers with extremely high firepower. They require high Supremacy and Firaxite to construct. You get a unit with high Combat Strength and a ranged attack (it's not much Range, but you won't have to face counterattacks). ANGELs chew up generic defenders and force them to abandon their fortified status or get killed over time.

APOSTLE3

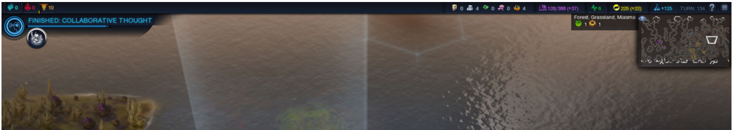
- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 64 Combat. Choice of 10 HP Healing for adjacent units every turn or 30% bonus Strength when flanking.
- **Prerequisite Tech**: Habitation

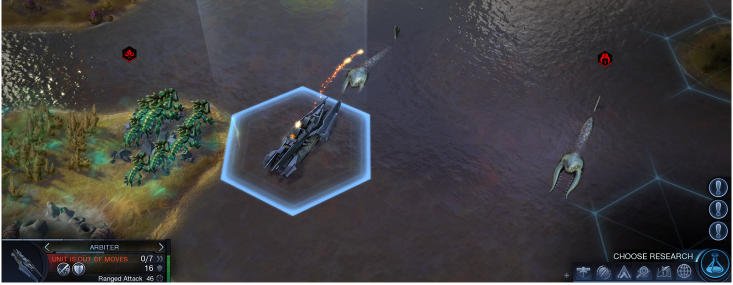

ARTIFICIAL EVOLUTION (4)
TURN: 191
Farm, Road
Grassland
3
Trade Routes:
Khrabrost (Slavic Federation) Banu Musa (Minor Power)
Serik (Slavic Federation) Uspekh (Slavic Federation)
Slavic Trader
Uspekh (Slavic Federation) Banu Musa (Minor Power)
Slavic Trader
APOSTLE
0/2
64
A UNIT NEEDS ORDERS

Like all Supremacy units, Apostles are best used in formations because of their flanking or Healing bonuses. Keep groups of them together for maximum offensive power and survivability so that you can flank and exterminate your opponents.

ARBITER

- **Cost**: 120 Production
- **Movement**: 3
- **Range**: 2
- **Abilities**: 16 Combat, 46 Ranged Combat, +1 Movement. Choice of 15% when next to a friendly unit or 30% when defending.
- **Prerequisite Tech**: Computing

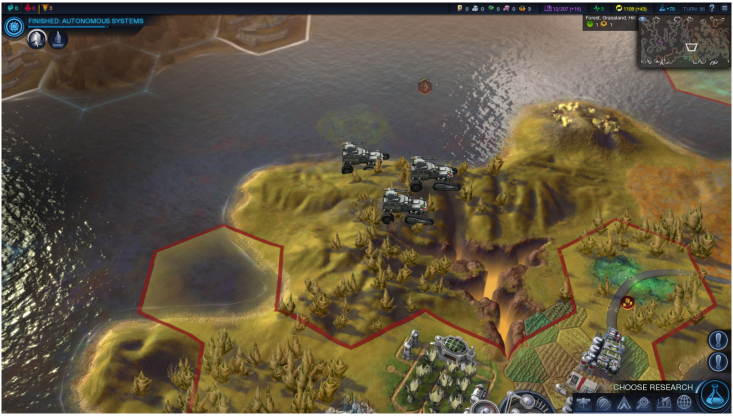

FINISHED: COLLABORATIVE THOUGHT
TURN: 134
Forest, Grassland, Miasma
1 1


ARBITER
UNIT IS OUT OF MOVES
0/7
16
Ranged Attack 46
CHOOSE RESEARCH

Arbiters have the Movement and ranged attacks to deal serious damage, especially when used in packs. Ride them up to an existing battle, keep them close to each other for any bonuses, and blast away. Make sure to have your melee troops follow up after you've softened the targets this way.

ARMOR

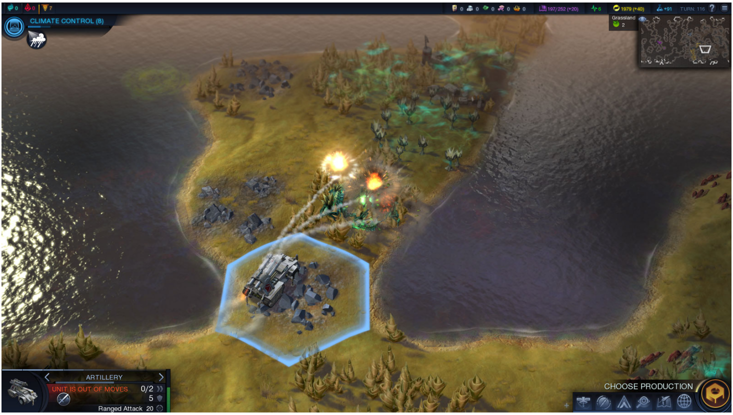
- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 22 Combat
- **Prerequisite Tech**: Engineering


FINISHED: AUTONOMOUS SYSTEMS
12/207 (+16)
1108 (+43)
+75
TURN: 96
Forest, Grassland, Hill
CHOOSE RESEARCH

This is the second-tier Combat Rover. It's solid on Combat Strength and Movement for the relatively early game. Use Armor to scout for danger or raid enemy territory.

ARTILLERY

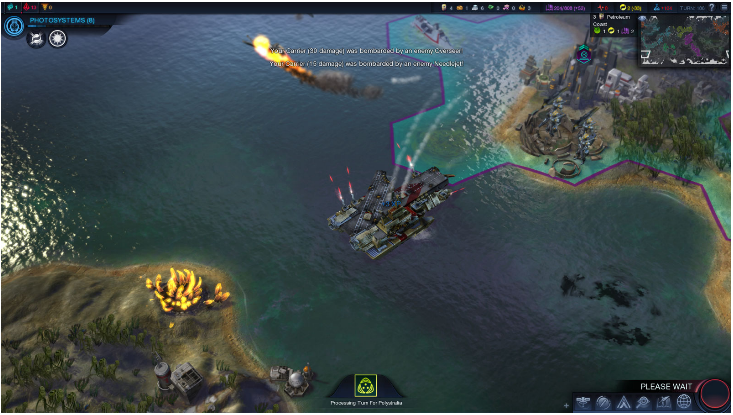
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 5 Combat, 20 Ranged Combat, +10% when attacking cities. Choice of +30% when attacking cities or +20% when attacking land units.
- **Prerequisite Tech**: Computing


CLIMATE CONTROL (8)
Grassland
2
TURN: 116
ARTILLERY
UNIT IS OUT OF MOVES
0/2
5
Ranged Attack 20
CHOOSE PRODUCTION

Missile Rovers upgrade into Artillery after you get several points in any single affinity. These units start to get decent at attacking cities, but they're still quite exposed in the open field and don't have the Movement or Setup bonuses to be wieldy. Expect your units to die quickly if you can't provide heavy defenders to stop someone from coming after them. They're most vulnerable to fast units, like Armor.

BASTION

- **Cost**: 160 Production
- **Movement**: 3
- **Abilities**: Combat 44, +1 Movement, +1 capacity for aircraft. Choice of +20% for onboard aircraft when attacking and +20% for onboard aircraft when defending or +1 capacity as a base for aircraft.
- **Prerequisite Tech**: Fabrication



Your Carrier (30 damage) was bombarded by an enemy Overseer!

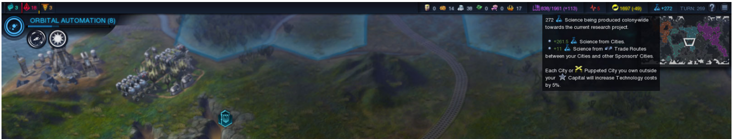
Your Carrier (15 damage) was bombarded by an enemy Needlejet!

PHOTOSYSTEMS (8)
3 Petroleum
Coast
Processing Turn For Polystralia
PLEASE WAIT
TURN: 186

Bastions let you carry aircraft toward distant ports of call. Use their upgraded capacity to bring multiple air units, but don't forget to have defensive naval units ready. Bastions aren't that difficult to take out, and your enemies are going to target them aggressively. Launch missions from maximum Range so that your opponent can't make it out to your ship without taking more time. This gives you a chance to pull back and reorganize your defenders.

▣ BATTLESUIT

- **Cost**: 160 Production
- **Movement**: 2
- **Abilities**: 40 Combat
- **Prerequisite Tech**: Servomachinery

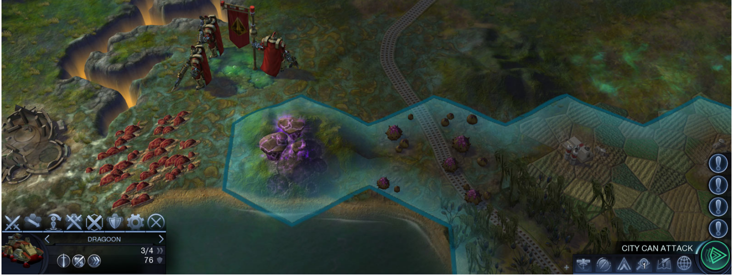


272 Science being produced colony-wide towards the current research project.

- +261.5 Science from Cities.
- +11 Science from Trade Routes between your Cities and other Sponsors' Cities.

Each City or Puppeted City you own outside your Capital will increase Technology costs by 5%.

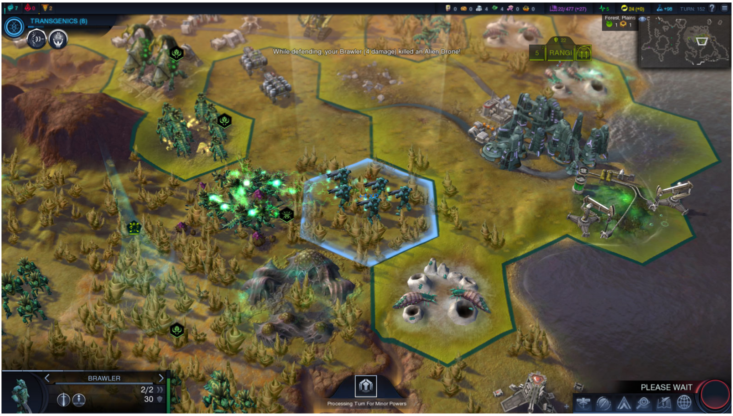
ORBITAL AUTOMATION (8)
838/1961 (+113)
1697 (-49)
+272
TURN: 269


DRAGOON
3/4
76
CITY CAN ATTACK

Battlesuits are unique Purity shock troopers with heavy weaponry and superior armor. They require Titanium to construct. Battlesuits are combat-focused infantry, and they serve a similar role in your force. Screen ranged troops to protect them, siege cities that have been weakened by bombardment, and hold the line.

BRAWLER

- **Cost**: Production
- **Movement**: 2
- **Abilities**: 30 Combat. Choice of 40% bonus Strength when not adjacent to any friendly units or 20 HP attack to adjacent enemy units on death.
- **Prerequisite Tech**: Habitation


While defending, your Brawler (4 damage) killed an Alien Drone!

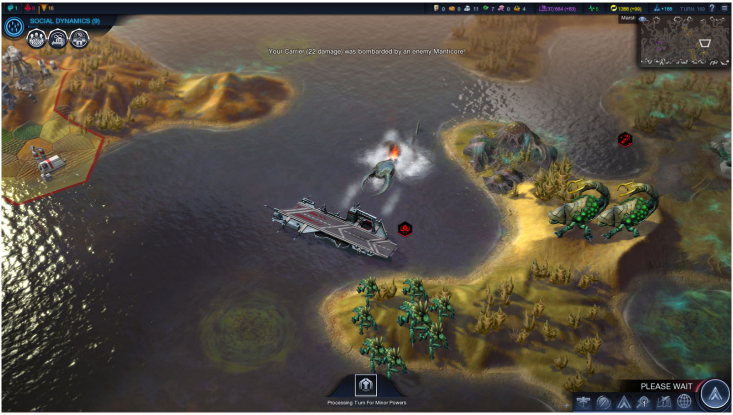
Processing Turn For Minor Powers
TRANSGENICS (8)
22/477 (+27)
24 (+0)
+98
TURN: 152
Forest, Plains
22
5
RANGI
BRAWLER
2/2
30
PLEASE WAIT

Brawlers are quite different depending on the perk you choose when you create them. Their bonus Combat Strength when away from allies is good for creating crazy attackers that stand off in miasma and fortify. They're annoying as heck for your enemies to clear off of terrain like that.

Alternately, you can give them the death explosion, which helps for clearing groups of adversaries during large battles and siege warfare. The former ability is better on defense. The latter is good for aggressive Harmony players.

CARRIER

- **Cost**: 160 Production
- **Movement**: 3
- **Abilities**: Combat 18
- **Prerequisite Tech**: Fabrication



Your Carrier (22 damage) was bombarded by an enemy Manticore!

SOCIAL DYNAMICS (9)
Marsh
TURN: 169
PLEASE WAIT
Processing Turn For Minor Powers

The basic Carrier is used to take aircraft around the waterways of your world. Don't ever let it get attacked directly; Carriers don't stand up in major battles, and you won't want to lose all of your aircraft. Bring defensive units along for the ride, and keep them as a screen in between your Carrier and any enemy units.

CARVR

- **Cost**: 220 Production
- **Movement**: 2
- **Abilities**: Combat 50
- **Prerequisite Tech**: Autogyros

BIOLOGY (1)
Floatstone
Desert
TURN: 305
Intruder Alert!
PLEASE WAIT
Processing Turn For Minor Powers

CARVRs are unique Supremacy units. They require Firaxite to construct, but they're worth it. With high Combat Strength, CARVRs can wade into combat and come out ahead.

▣ CENTAUR

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 8 Combat, 32 Ranged Combat, +30% when attacking cities. Choice of +1 Movement Point or +40% when defending against ranged attacks.
- **Prerequisite Tech**: Computing

FINISHED: SERVOMACHINERY
Grassland, Hill
TURN: 390
14 SANTO ADRIÃO

Your Evolved LEV Tank (15 damage) was bombarded by the enemy City of Santo Adrião!

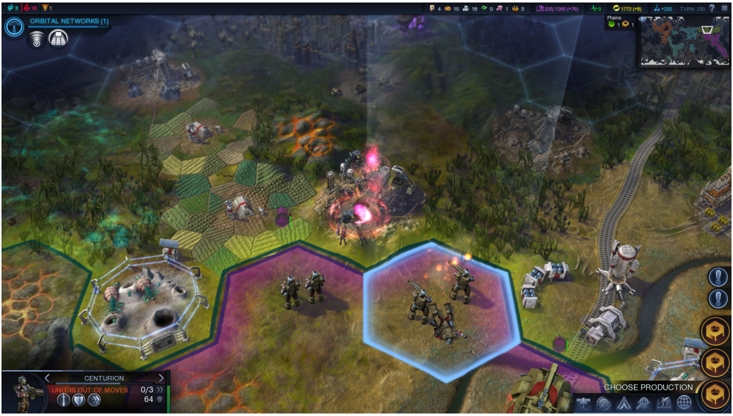
Brasilia has condemned Pan-Asian Cooperative!

PLEASE WAIT
Processing Turn For Aliens

This guide usually avoids leaning on people to choose one perk over the other, but give Centaurs the bonus Movement Point. They're never going to be that solid, even when defending against ranged attacks. Having more Movement gets them where they need to go sooner, and that's the real way to keep them safe. Get into position, and fire on those cities.

CENTURION

- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 64 Combat. Choice of +1 Movement or automatic Healing every turn.
- **Prerequisite Tech**: Habitation



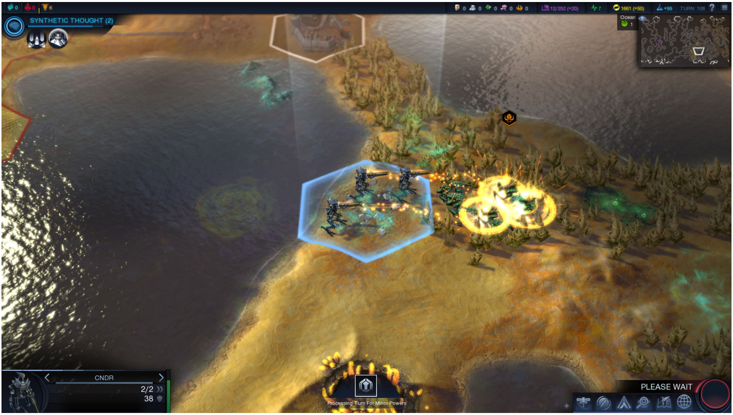
ORBITAL NETWORKS (1)
TURN: 230
Plains
CENTURION
UNIT IS OUT OF MOVES
0/3
64
CHOOSE PRODUCTION

Centurions have a fun choice to make. Automatic Healing makes them deeply obnoxious when acting as defenders. Set them up in rough terrain, attack anyone who comes by, and force your foes to devote way too much firepower to bring you down. If they don't, you heal, and they're forced to back off.

Centurions with higher Movement aren't as good on defense, but they become wonderful at sieging. They'll get into city Range and attack like cavalry. It's an impressive edge that you won't want to give up.

CNDR

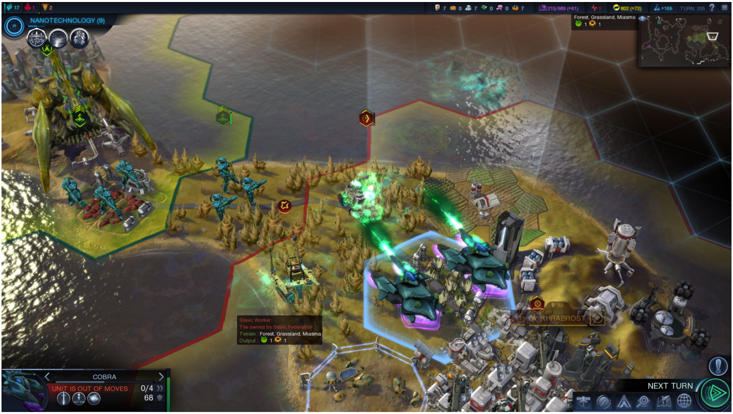
- **Cost**: 155 Production
- **Movement**: 2
- **Abilities**: 38 Combat
- **Prerequisite Tech**: Tactical Robotics


SYNTHETIC THOUGHT (2)
Ocean
TURN: 108
CNDR
2/2
38
Processing Turn For Minor Powers
PLEASE WAIT

CNDRs are a unique Supremacy unit. These are defensive robots that hold the line. They require Firaxite to construct. Once they're upgraded, these robots become brutally tough to kill. They get massive defensive bonuses while inside friendly territory.

COBRA

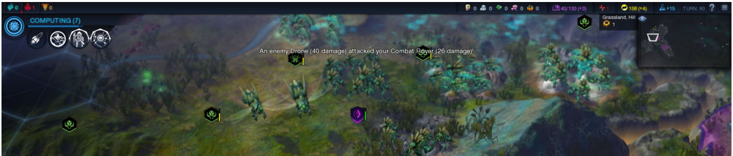
- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 68 Combat, +1 Movement, all terrain costs 1 Movement, levitates over land and sea. Choice of +30% when attacking and in miasma or 30% when defending and in miasma.
- **Prerequisite Tech**: Engineering


NANOTECHNOLOGY (9)
TURN: 205
Forest, Grassland, Miasma
Slavic Worker
Tile owned by Slavic Federation
Terrain : Forest, Grassland, Miasma
Output : 1 1
KHRABROST
COBRA
UNIT IS OUT OF MOVES
0/4
68
NEXT TURN

Cobras don't have as much direct punch as their rivals in other affinities, but they're darn nasty when used inside miasma. Launch Miasmic Condensers to spread miasma around target areas (both defensively and offensively), and use that as cover to make your combat easier and cause damage to enemies over time if they haven't kept up with their Harmony Research.

▣ COMBAT ROVER

- **Cost**: 80 Production
- **Movement**: 3
- **Abilities**: 12 Combat
- **Prerequisite Tech**: Engineering


COMPUTING (7)
TURN: 60
Grassland, Hill

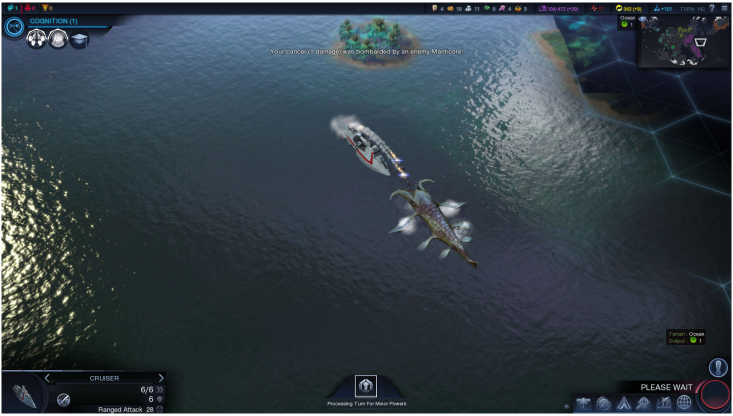
An enemy Drone (40 damage) attacked your Combat Rover (26 damage)!

PLEASE WAIT
Processing Turn For Minor Powers

The basic Combat Rover is a fast attacker that raids enemy territory, quickly responds to internal threats inside your borders, and grows to become a deadly attacker in the later game.

CRUISER

- **Cost**: 120 Production
- **Movement**: 3
- **Range**: 2
- **Abilities**: 6 Combat, 28 Ranged Combat, +1 Movement. Choice of 20% against land units or 20% against sea units.
- **Prerequisite Tech**: Computing

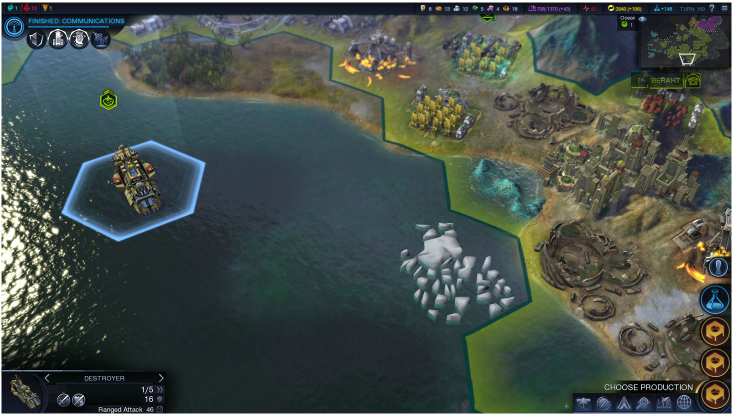

Your Lancer (1 damage) was bombarded by an enemy Manticore!

COGNITION (1)
TURN: 142
Ocean
Terrain : Ocean
Output : 1
CRUISER
6/6
6
Ranged Attack 28
Processing Turn For Minor Powers
PLEASE WAIT

Cruisers watch the water routes and act to defend Carriers, bombard cities and land units, or take the fight directly to other nation's naval units. You won't need too many of these in a map with massive land masses. You are going to need quite a few Cruisers on maps with more water; they're your rank-and-file troops on the waves.

DESTROYER

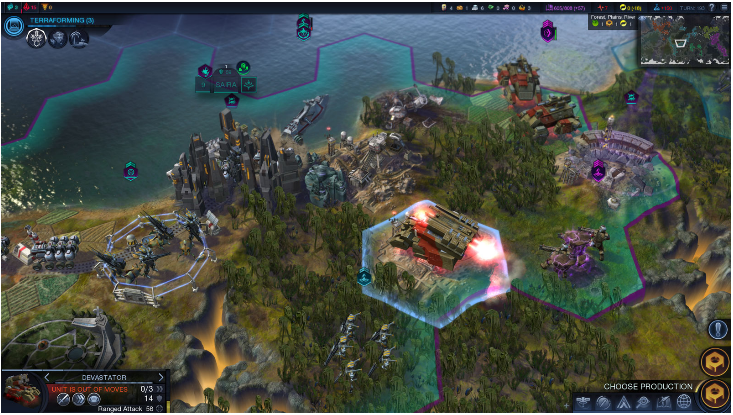
- **Cost**: 120 Production
- **Movement**: 3
- **Range**: 2
- **Abilities**: 16 Combat, 46 Ranged Combat, +1 Movement. Choice of 20% when attacking or 5% per unused Movement Point.
- **Prerequisite Tech**: Computing


FINISHED: COMMUNICATIONS
TURN: 169
Ocean
BERAHT
DESTROYER
1/5
16
Ranged Attack 46
CHOOSE PRODUCTION

This Purity ship is a good attacker. It has reliable ranged damage and can really do some harm against coastal areas. Don't neglect them during sieges; they make it so much easier to grab valuable land that's directly by the water. Those are often the best trade cities!

DEVASTATOR

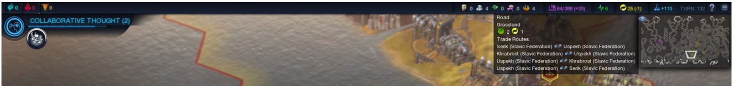
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 14 Combat, 48 Ranged Combat, +50% when attacking cities, all terrain costs 1 Movement, levitates over land and sea. Choice of attacking over terrain obstacles or +1 Range when unit has not moved.
- **Prerequisite Tech**: Computing


TERRAFORMING (3)
SAIRA
DEVASTATOR
UNIT IS OUT OF MOVES
0/3
14
Ranged Attack 58
Forest, Plains, River
TURN: 193
CHOOSE PRODUCTION

Screen these units with defensive troops, and let them pound down city defenses until you can take the site without heavy casualties. Their levitation makes it much easier to get into position, set up, and deal your damage. If you use smaller groups of troops, take the extra Range because it's harder to defend your devastators. If you field larger military forces, take the extra Movement; it's easier to keep up with your troops that way.

DISCIPLE

- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 30 Combat. Choice of 20% bonus Strength when adjacent to a friendly unit or 8% bonus per adjacent friendly unit.
- **Prerequisite Tech**: Habitation

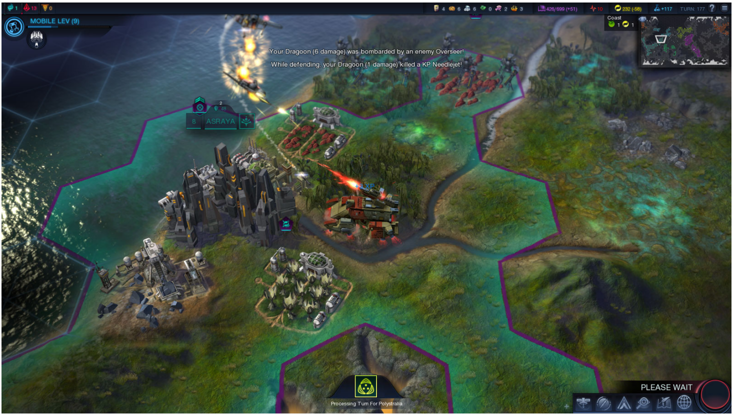

COLLABORATIVE THOUGHT (2)
TURN: 132
Road
Grassland
Trade Routes:
Serik (Slavic Federation) Uspekh (Slavic Federation)
Khrabrost (Slavic Federation) Uspekh (Slavic Federation)
Uspekh (Slavic Federation) Khrabrost (Slavic Federation)
Uspekh (Slavic Federation) Serik (Slavic Federation)

DISCIPLE
UNIT IS OUT OF MOVES
0/2
30
NEXT TURN

These troops hold the line well and can do anything you need. They don't excel at anything in particular, but they're inexpensive, have solid bonuses, and lack any serious weak points. Disciples benefit from adjacent friendly units regardless of the points chosen, so keep them in formations for the maximum offensive punch.

▣ DRAGOON

- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 76 Combat, all terrain costs 1 Movement, levitates over land and sea. Choice of +1 Movement Point or 50% bonus when attacking cities.
- **Prerequisite Tech**: Engineering

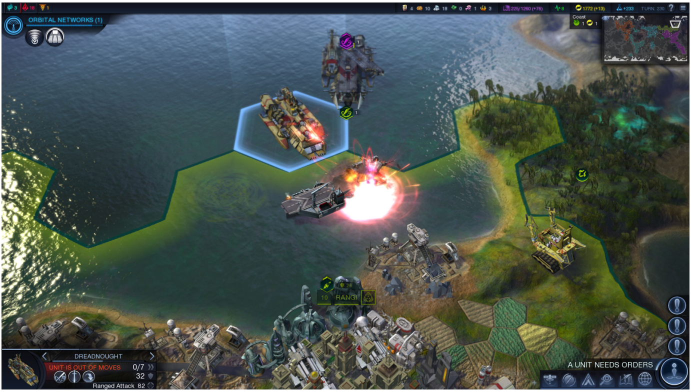

Your Dragoon (6 damage) was bombarded by an enemy Overseer!

While defending, your Dragoon (1 damage) killed a KP Needlejet!

MOBILE LEV (9)
ASRAYA
Coast
TURN: 177
PLEASE WAIT
Processing Turn For Polystralia

Dragoons are the heaviest and least subtle of the fast movers. Dragoons never get much speedier, compared with their other affinity rivals, but they have so much destructive potential. If you're a raider, don't take that extra Movement. It's tempting, but the threat from bonus city damage ensures that your raiding Dragoons are a terror to your enemies, who must watch all of their borders from every angle. Otherwise, a small team of Dragoons can swoop in and start taking cities. You don't even need to hold them (have defensive troops come in for that, if you like). Simply opening a new front can cripple an opponent's ability to respond to your invasion. They'll split their forces and start to lose more fights, or they'll ignore one of their fronts and let you eat them from the inside out.

DREADNAUGHT

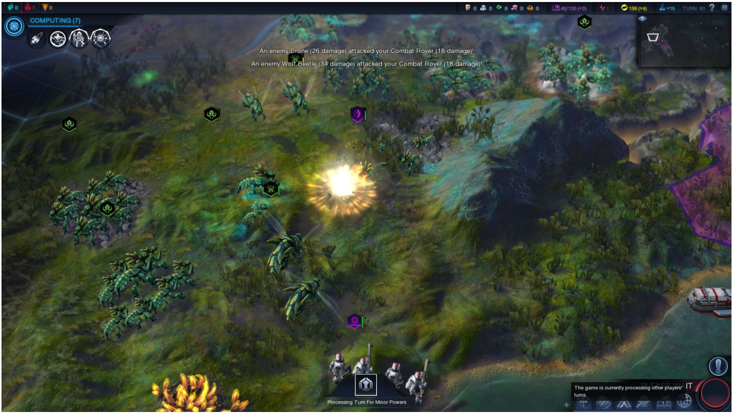
- **Cost**: 120 Production
- **Movement**: 4
- **Range**: 2
- **Abilities**: 32 Combat, 72 Ranged Combat. Choice of +1 Range or +1 Movement Point.
- **Prerequisite Tech**: Computing
- 
ORBITAL NETWORKS (1)
TURN: 230
Coast
DREADNOUGHT
UNIT IS OUT OF MOVES
0/7
32
Ranged Attack 82
A UNIT NEEDS ORDERS

Dreadnaughts are heavy shellers, with impressive ranged stats. Favor their Range upgrade if you're using Dreadnaughts for bombardment, but use Movement if they're naval screens and fighting more frequently in the open water.

DRONE

- **Cost**: 80 Production
- **Movement**: 3
- **Abilities**: 12 Combat

- **Prerequisite Tech**: None


COMPUTING (7)
TURN: 60
PLEASE WAIT

An enemy Drone (26 damage) attacked your Combat Rover (18 damage)!

An enemy Wolf Beetle (34 damage) attacked your Combat Rover (18 damage)!

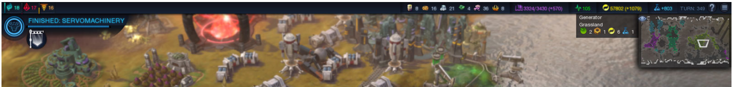
Processing Turn For Minor Powers

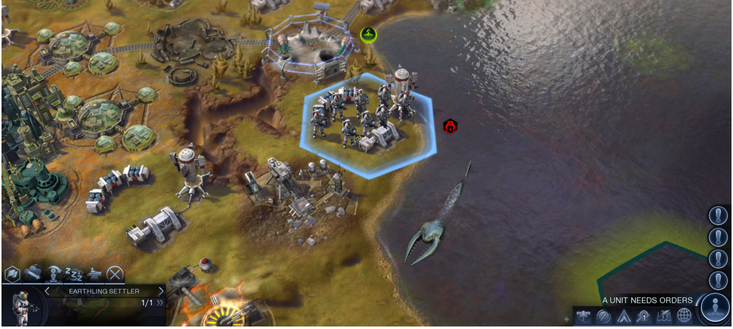
The game is currently processing other players' turns.

Drones are flying alien units that bypass terrain obstacles. You won't normally get access to these, but it's possible to acquire them from specific expedition sites. They make great patrollers and raiders because of their fast movement and ability to fly over rough terrain.

EARTHLING SETTLER

- **Cost**: Free
- **Movement**: 1
- **Abilities**: None
- **Prerequisite Tech**: None

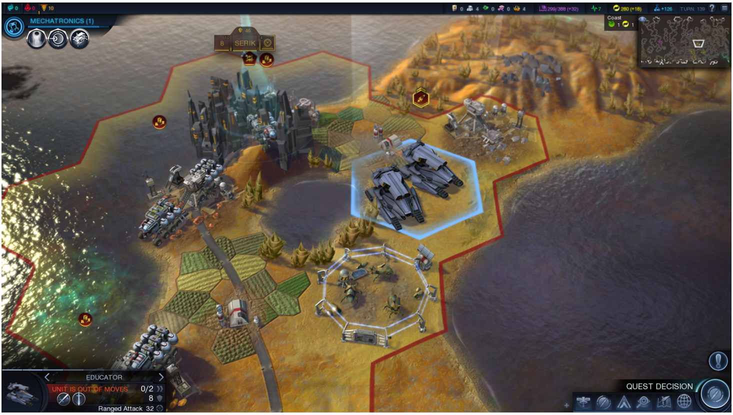

FINISHED: SERVOMACHINERY
TURN: 349
Generator
Grassland


EARTHLING SETTLER
1/1
A UNIT NEEDS ORDERS

Earthling Settlers are part of the Promised Land victory condition. They are produced at Exodus Gates, and you can use them to increase the population of Earthling colonies.

EDUCATOR

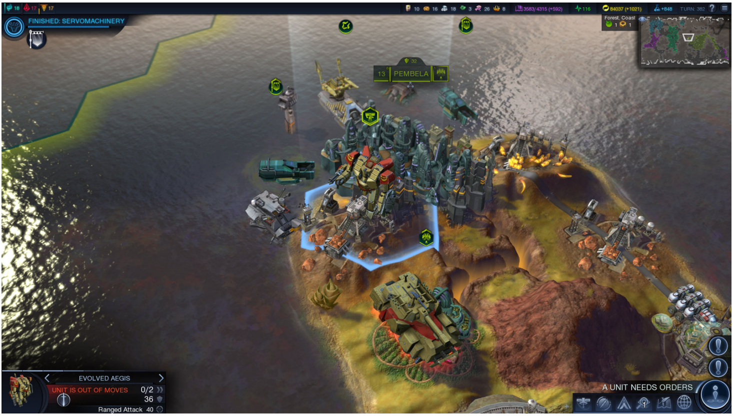
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 8 Combat, 32 Ranged Combat, +30% when attacking cities. Choice of +30% when wounded units or +20% when next to a friendly unit.
- **Prerequisite Tech**: Computing


MECHATRONICS (1)
SERIK
Coast
TURN: 139
EDUCATOR
UNIT IS OUT OF MOVES
0/2
8
Ranged Attack 32
QUEST DECISION

Educators, like most units of their type, are good city siegers. Their upgrade for +20% damage when supported by a friendly unit is quite strong because it helps them accomplish their primary task (busting cities) while also raising their anti-troop damage. You aren't going to leave Educators unsupported anyway, as they'd get killed in a heartbeat. So, that perk is a very strong option.

EVOLVED AEGIS

- **Cost**: 140 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: Combat 32, Ranged Combat 40, 1 more attack every turn, +10 HP Healing for adjacent units every turn. Choice of +40% when attacking wounded units or +50% when attacking fortified units.
- **Prerequisite Tech**: Surrogacy


FINISHED: SERVOMACHINERY
TURN: 382
Forest, Coast
13
PEMBELA
32
EVOLVED AEGIS
UNIT IS OUT OF MOVES
0/2
36
Ranged Attack 40
A UNIT NEEDS ORDERS

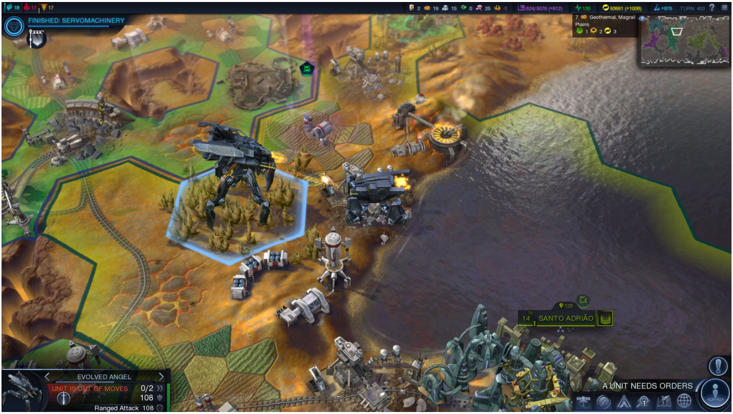
The Evolved Aegis is a unique Purity unit. Their bonus against wounded units is extremely nice when you use them in formations with other allies. Have a ranged unit soften the target, and then let the Aegis do its work. Solo Evolved Aegises do better work with their bonus against fortified targets; this makes them more of a slow raider, which is an odd use.

EVOLVED ANGEL

- **Cost**: 190 Production
- **Movement**: 2
- **Range**: 2

- **Abilities**: 84 Combat, 84 Ranged Combat, can move after attacking, all terrain costs 1 Movement. Choice of +30% when attacking or +50% when not next to any friendly units.

- **Prerequisite Tech**: Neural Uploading


FINISHED: SERVOMACHINERY
TURN: 400
7 Geothermal, Magrail
Plains
SANTO ADRIÃO
14
EVOLVED ANGEL
UNIT IS OUT OF MOVES
0/2
108
Ranged Attack 108
A UNIT NEEDS ORDERS

These are ultimate Supremacy units. You won't normally get to field many of them because they're Firaxite-dependent, but each one you have is a strong ally. Their ranged attacks let you deal damage without counters, and their melee Strength is just as high, so they aren't easily overwhelmed. If you take their 50% bonus when alone, they can threaten enemies all by themselves. Have them storm into areas, wreck the place, and create chaos while your main force pushes in from another angle.

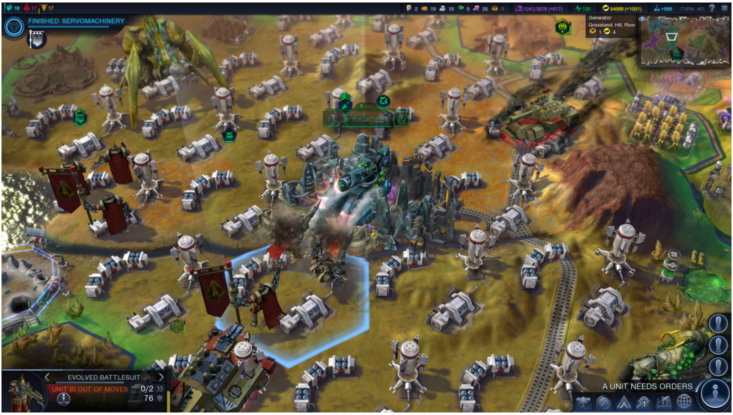
▣ EVOLVED BATTLESUIT

- **Cost**: 140 Production

- **Movement**: 2

- **Abilities**: 82 Combat, +30% when defending. Choice of +20% when flanking or 40% when not next to any friendly unit.

- **Prerequisite Tech**: Servomachinery

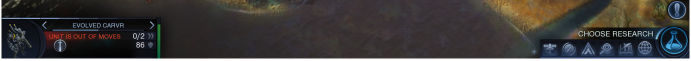

FINISHED: SERVOMACHINERY
CIDADELA
EVOLVED BATTLESUIT
UNIT IS OUT OF MOVES
0/2
76
A UNIT NEEDS ORDERS
Generator
Grassland, Hill, River

The Evolved Battlesuit is a unique Purity unit. Take their 40% bonus when alone, and use them to defend rough terrain, chokepoints, and cities. They are annoying as anything to dislodge. Make sure to fortify in these areas, and don't bother attacking anything. Stand still and take the hits while your opponents kill themselves on the Battlesuit. Use air units and fast attackers to clean up ranged units that try to take advantage of the fortified Battlesuit.

EVOLVED CARVR

- **Cost**: 150 Production
- **Movement**: 2
- **Abilities**: Combat 86, +15% when next to a friendly unit. Choice of +8% per adjacent friendly unit or +50% when attacking fortified units.
- **Prerequisite Tech**: Autogyros

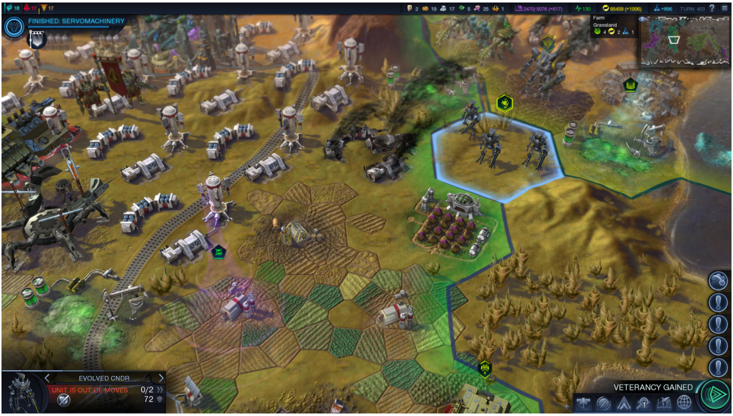
FINISHED: COLLABORATIVE THOUGHT
Algae
Coast

- 
EVOLVED CARVR
UNIT IS OUT OF MOVES
0/2
86
CHOOSE RESEARCH

The Evolved CARVR is a unique Supremacy unit. If you don't already have a unit for breaking fortified opponents, use CARVRs for that role. Otherwise, give them the stacking adjacency bonuses and treat them like most Supremacy units: big formations, maximum firepower.

EVOLVED CNDR

- **Cost**: 120 Production
- **Movement**: 2
- **Abilities**: 74 Combat, +8% per adjacent friendly unit. Choice of +30% when in own territory or 50% when fortified.
- **Prerequisite Tech**: Tactical Robotics

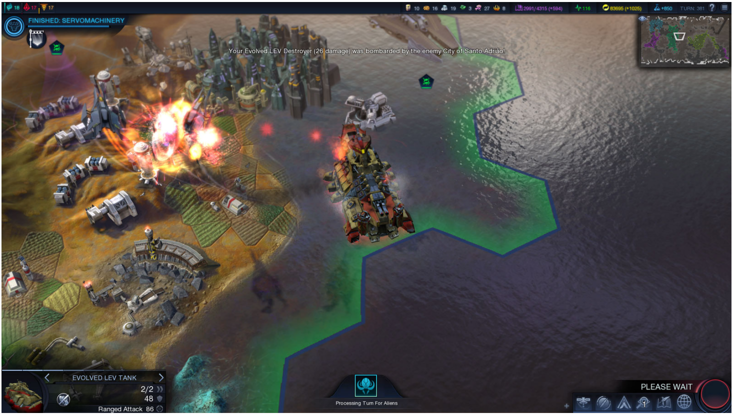

FINISHED: SERVOMACHINERY
TURN: 403
Farm
Grassland
EVOLVED CNDR
UNIT IS OUT OF MOVES
0/2
72
VETERANCY GAINED

There are unique Supremacy units. Fortify your CNDRs, and let the enemies come, attempting to kill them. It won't work. For pure defense, take the fortification bonus and use them passively. If you want them to be patrollers and attackers inside your borders, take the general territory bonus because you can use that to fight actively instead of waiting for your opponents to come to you. Both are valid choices.

EVOLVED LEV DESTROYER

- **Cost**: 225 Production

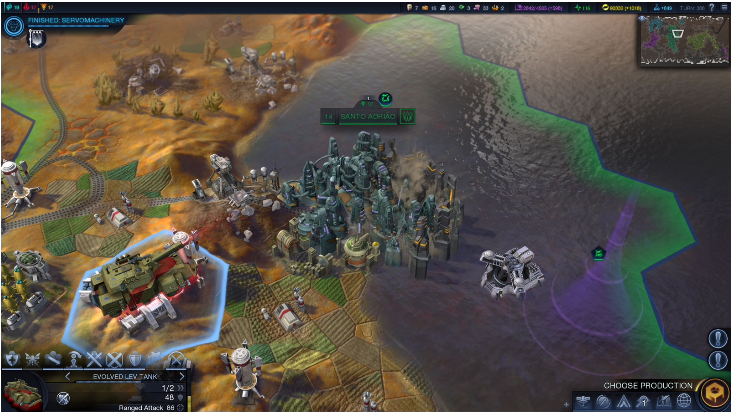
- **Movement**: 2
- **Range**: 2
- **Abilities**: 70 Combat, 108 Ranged Combat, +30% when attacking, +10 HP splash damage to enemy units next to target. Choice of +1 Range when unit has full Health or +50% when defending against Range.
- **Prerequisite Tech**: Tactical LEV


Your Evolved LEV Destroyer (26 damage) was bombarded by the enemy City of Santo Adrião!
18
17
17
10
16
19
3
27
8
2991/4315 (+594)
116
83695 (+1025)
+850
TURN: 381
FINISHED: SERVOMACHINERY
EVOLVED LEV TANK
2/2
48
Ranged Attack 86
Processing Turn For Aliens
PLEASE WAIT

The Evolved LEV Destroyer is the ultimate Purity unit. Things don't hit much harder than this. They're glorious on offense and don't get killed easily, even when they're attacked. If you're going to screen them really well and keep them healed, take the bonus Range, but it's easily negated by any enemies with their own Range or air power. Usually, the ranged defense is going to be easier to maintain.

▣ EVOLVED LEV TANK

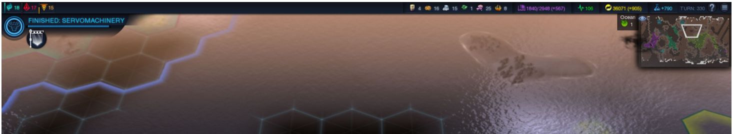
- **Cost**: 180 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 46 Combat, 84 Ranged Combat, +1 Range for anti-orbital strike, +10% per unused Movement Point. Choice of +1 Movement Point or Movement after attacking.
- **Prerequisite Tech**: Mobile LEV

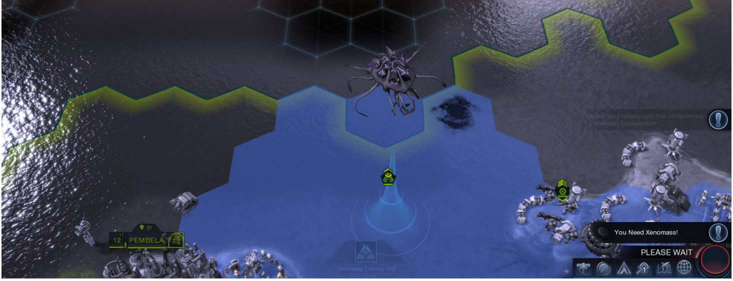

FINISHED: SERVOMACHINERY
14
SANTO ADRIÃO
EVOLVED LEV TANK
1/2
48
Ranged Attack 86
CHOOSE PRODUCTION
TURN: 388

You can use this unique Purity unit to take down enemy orbitals. It also functions as a flexible ranged unit that can fire and retreat if you want to lure an enemy force into a nastier area while harassing them. If you take extra Movement instead, you get almost the same effect: the ability to outmaneuver most ranged forces so that they give you the first strike.

▣ EVOLVED ROCKTOPUS

- **Cost**: 150 Production
- **Movement**: 1
- **Range**: 2
- **Abilities**: 78 Ranged Combat, +1 Range for anti-orbital strike, generate miasma in orbit. Choice of +30% when attacking or +1 Movement.
- **Prerequisite Tech**: Designer Lifeforms


FINISHED: SERVOMACHINERY
Ocean
TURN: 330


12
PEMBELA
31
PLEASE WAIT
Processing Turn For ARC

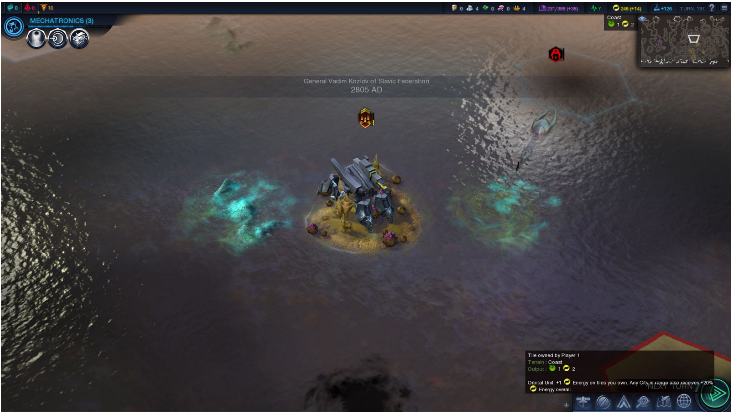
Kavithan Protectorate has condemned Pan-Asian Cooperative!

You Need Xenomass!

The Evolved Rocktopus is a unique Harmony unit. They float above the battle, hammering away at the foes beneath and making miasma for your troops. They're a great addition to any offensive Harmony force (most of which rely on miasma for their best bonuses).

▣ EVOLVED SABR

- **Cost**: 160 Production
- **Movement**: 2
- **Range**: 3
- **Abilities**: 24 Combat, 98 Ranged Combat, +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles. Choice of -1 Setup needed before attacking or +60% when attacking wounded units.
- **Prerequisite Tech**: Synthetic Thought


MECHATRONICS (3)
TURN: 137
Coast
NEXT TURN

General Vadim Kozlov of Slavic Federation
2805 AD

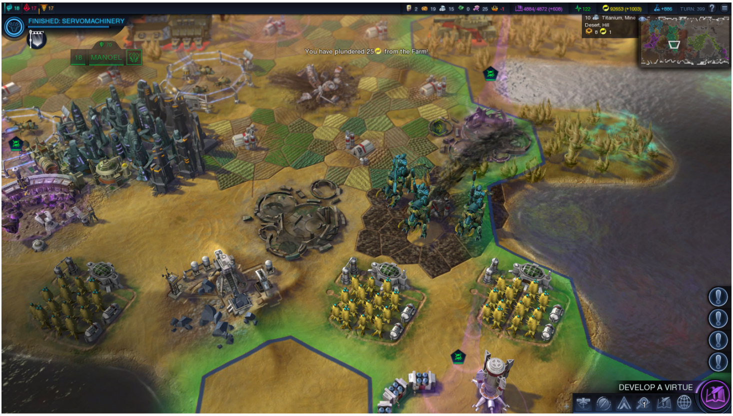
Tile owned by Player 1
Terrain : Coast
Output : 1 2

Orbital Unit. +1 Energy on tiles you own. Any City in range also receives +20% Energy overall.

Evolved SABRs are unique Supremacy units. Used defensively, they're able to pick off wounded units with amazing damage. Plant them inside a city with an air unit, have the air unit attack first, and then follow up with your SABR for the big damage. If you're more offensive, consider taking -1 Setup needed before attacking because it allows you to get into position and fire much more easily.

EVOLVED XENO CAVALRY

- **Cost**: 130 Production
- **Movement**: 3
- **Abilities**: 70 Combat, all terrain costs 1 Movement. Choice of +40% when in miasma and attacking and +40% when in miasma and defending or +40% when not adjacent to any friendly unit.
- **Prerequisite Tech**: Alien Domestication


FINISHED: SERVOMACHINERY
18 MANOEL
10 Titanium, Mine
Desert, Hill
TURN: 399
DEVELOP A VIRTUE

You have plundered 25 from the Farm!

A unique Harmony unit, Evolved Xeno Cavalry become superb raiders if you give them the bonus for being alone. That way, they're one of your Harmony units that won't need to wait for miasma to be in an area. Have them rush in from unprepared angles and attack enemy cities that thought they were safe.

To make this even more effective, spread miasma near enemy cities in a totally different section of their borders. This makes it look like an attack is coming from that side, and you might draw more forces there (making life easier for your Xeno Cavalry when they charge into battle elsewhere).

EVOLVED XENO SWARM

- **Cost**: 100 Production
- **Movement**: 2

- **Abilities**: 58 Combat, +20% when in miasma and attacking, +20% when in miasma and defending. Choice of 20 HP damage to adjacent enemy units on death or +40% when in miasma and attacking and +40% when in miasma and defending.

- **Prerequisite Tech**: Alien Adaptation

FINISHED: SERVOMACHINERY
Fruit, Plantation
Grassland
5
TURN: 401
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
VETERANCY GAINED

Evolved Xeno Swarms are unique Harmony units. Fortify them inside miasma, and just walk away from the screen while enemies curse at the difficulty in killing them off. High Healing rates and major defensive bonuses contribute to making Xeno Swarms way nastier than their base Combat Strength implies.

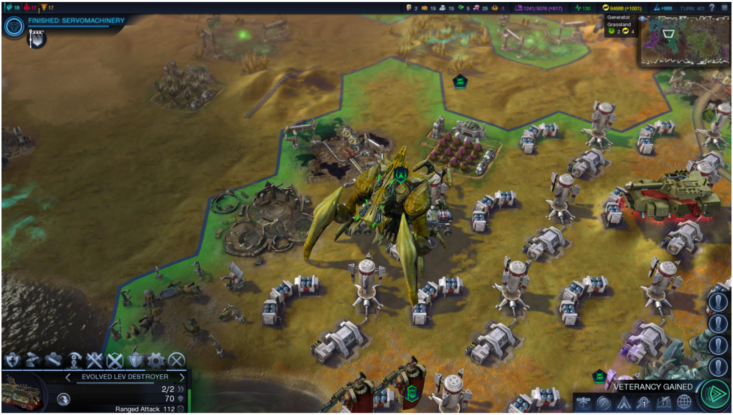
EVOLVED XENO TITAN

- **Cost**: 250 Production

- **Movement**: 2

- **Abilities**: 100 Combat, +50% when defending against ranged units, +20 HP after killing an enemy unit. Choice of +40% when in miasma and attacking and +40 when in miasma and defending or +40% when not next to any friendly unit.

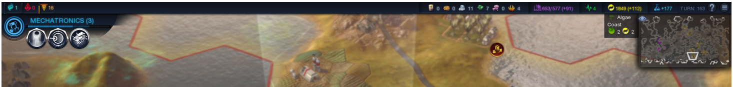
- **Prerequisite Tech**: Alien Evolution


FINISHED: SERVOMACHINERY
Generator
Grassland
TURN: 401
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
VETERANCY GAINED

The Evolved Xeno Titan is the ultimate Harmony unit. These are the heavy lifters of a late-game Harmony force. Keep them in miasma on defense while you spread the cloud over enemy territory, and then come forward to break through any defenses. These things are monsters in every sense of the word. They're best off if you still keep allies nearby. Soften targets for them so that your Xeno Titans can score more frequent kills. This bonus Healing really helps keep their momentum going.

EXECUTOR

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 18 Combat, 30 Ranged Combat, 1 extra attack every turn, can move after attacking. Choice of 8% bonus per adjacent friendly unit or +1 Range when no Movement Points are spent.
- **Prerequisite Tech**: Physics


MECHATRONICS (3)
Algae
Coast
TURN: 163

12
USPEKH
EXECUTOR
UNIT IS OUT OF MOVES
0/2
18
Ranged Attack 30
DEVELOP A VIRTUE

Executors have less Ranged Strength than the other top-tier affinity ranged units, but the extra attack they gain makes up for it. Use them to blast multiple targets, or double up on cities and distant foes to leave them vulnerable to heavier attackers. They'll get Experience quickly if you protect them, so extra Veterancy makes up for some of their lower Ranged Combat Strength.

EXPLORER

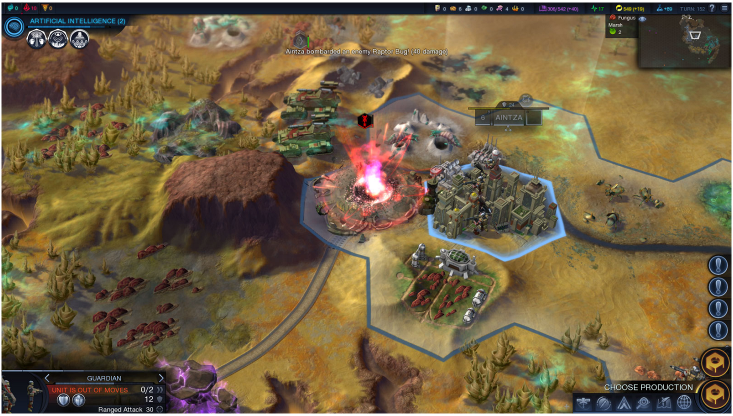
- **Cost**: 40 Production
- **Movement**: 3
- **Abilities**: 3 Combat, create an expedition site
- **Prerequisite Tech**: Habitation

MECHATRONICS (2)
TURN: 164
Canyon
12
KHRABROST
EXPLORER
UNIT IS OUT OF MOVES
0/2
3
Expedition Modules 2
A UNIT NEEDS ORDERS

Explorers are scouts who reveal terrain and can create expeditions to investigate alien artifacts and crash sites. They have almost no combative value, so keep them away from aliens and any enemy attackers.

GUARDIAN

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 12 Combat, 30 Ranged Combat. Choice of 50% bonus when stationed inside a city or 10% per unused Movement.
- **Prerequisite Tech**: Physics



Aintza bombarded an enemy Raptor Bug! (40 damage)

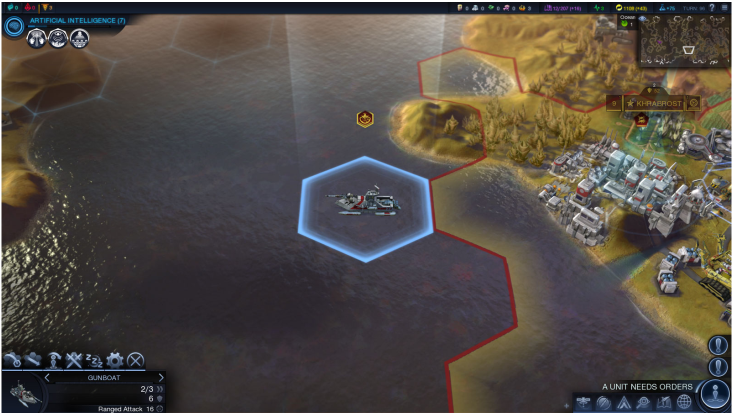
ARTIFICIAL INTELLIGENCE (2)
TURN: 152
Fungus
Marsh
AINTZA
GUARDIAN
UNIT IS OUT OF MOVES
0/2
12
Ranged Attack 30
CHOOSE PRODUCTION

Station Guardians inside your cities, and cut victims down like wheat whenever they attack. When combined with your city's own strike, it's possible to take down an enemy unit every single turn under many circumstances. This thwarts small invasions and forces your opponent to amass a larger force. That gives you time to bring defenders into the area, and they'll buy your Guardians even more time to melt faces.

GUNBOAT

- **Cost**: 120 Production
- **Movement**: 3
- **Range**: 2

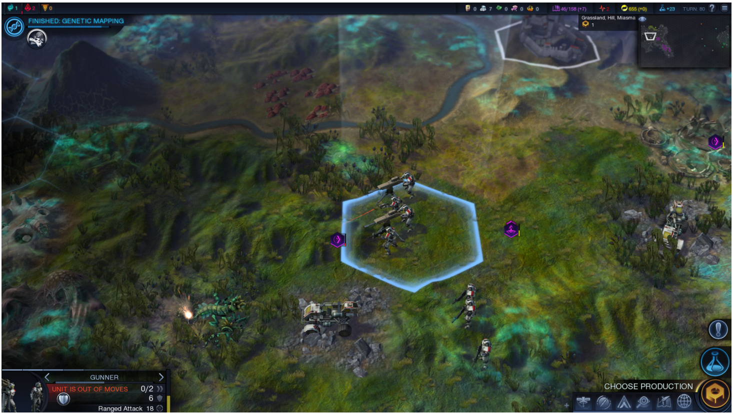
- **Abilities**: 6 Combat, 16 Ranged Combat
- **Prerequisite Tech**: Computing


0
0
3
0
0
0
0
3
12/207 (+16)
3
1108 (+43)
+75
TURN: 96
ARTIFICIAL INTELLIGENCE (7)
Ocean
1
KHRABROST
9
GUNBOAT
2/3
6
Ranged Attack 16
A UNIT NEEDS ORDERS

Gunboats are naval units that can patrol the waters or bombard coastlines. They become much better with increased affinity, so place a few of them out on the water before you finish researching better Technology, and get an edge on other naval powers as soon as your forces upgrade.

▣ GUNNER

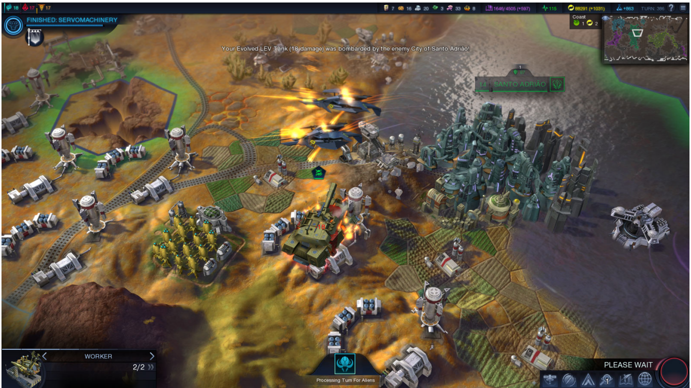
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 6 Combat, 18 Ranged Combat. Choice of 5 HP Healing (when not embarked) or 30% defensive Strength vs. ranged units.
- **Prerequisite Tech**: Physics


FINISHED: GENETIC MAPPING
Grassland, Hill, Miasma
TURN: 80
GUNNER
UNIT IS OUT OF MOVES
0/2
6
Ranged Attack 18
CHOOSE PRODUCTION

These upgraded Rangers are still quite vulnerable to direct attacks. Make sure to give them a melee defender unless you're patrolling in a very safe area (meaning that only a few aliens are present and you're not in the middle of a war).

▣ HERALD

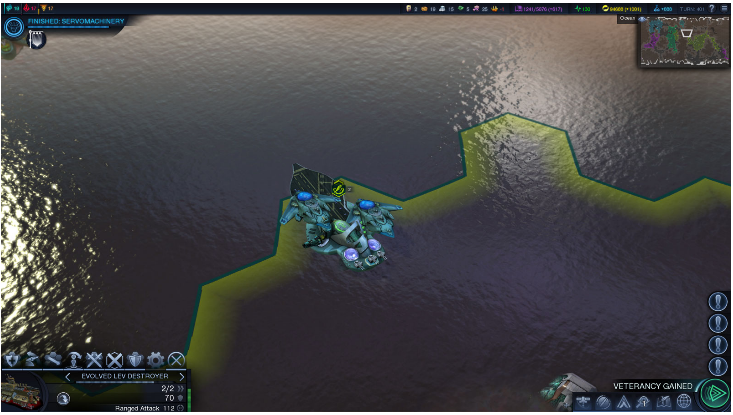
- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5
- **Abilities**: 36 Ranged Combat, +50% when air sweeping. Choice of +50% when air sweeping or 20% when attacking wounded units.
- **Prerequisite Tech**: Robotics


Your Evolved LEV Tank (18 damage) was bombarded by the enemy City of Santo Adrião!
FINISHED: SERVOMACHINERY
TURN: 386
Coast
SANTO ADRIÃO
WORKER
2/2
Processing Turn For Aliens
PLEASE WAIT

Use Heralds to stop enemies from having any useful air campaigns against you. Their stacking air sweep bonuses make it brutal for anyone to try to gain aerial control. Once you dominate the air, you can use the Heralds to wound vulnerable targets. They don't deal much direct damage, but your enemy won't get to contribute anything with their air forces, so you're still ahead on the deal!

HYDRA

- **Cost**: 160 Production
- **Movement**: 3
- **Abilities**: Combat 44, +1 Movement, +1 capacity for aircraft. Choice of 10 HP Healing for onboard aircraft every turn or +1 capacity as a base for aircraft.
- **Prerequisite Tech**: Fabrication


FINISHED: SERVOMACHINERY
Ocean
TURN: 401
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
VETERANCY GAINED

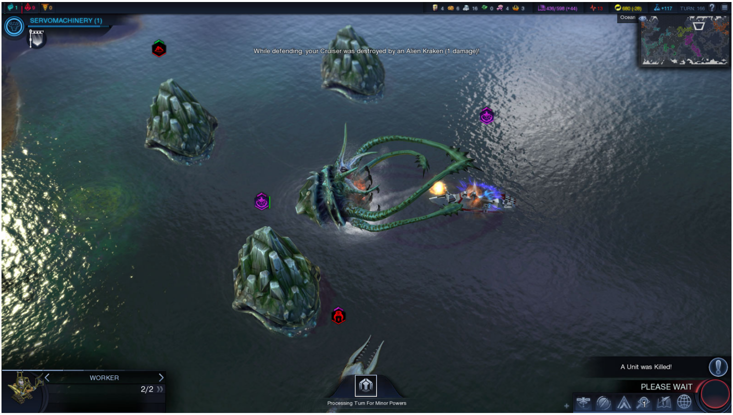
Hydras can be specced to heal their aircraft every turn; that's an amazing bonus for air units because they're always getting beaten up. More Healing means more uptime for your flyers, and that's a great thing. You can always grab a second Hydra if you need more capacity.

Make sure to defend these ships. They're always big targets.

KRAKEN

- **Cost**: 100 Production

- **Movement**: 2
- **Abilities**: 70 Combat
- **Prerequisite Tech**: None


SERVOMACHINERY (1)
Ocean
WORKER
2/2
A Unit was Killed!
PLEASE WAIT
Processing Turn For Minor Powers
TURN: 166

While defending, your Cruiser was destroyed by an Alien Kraken (1 damage)!

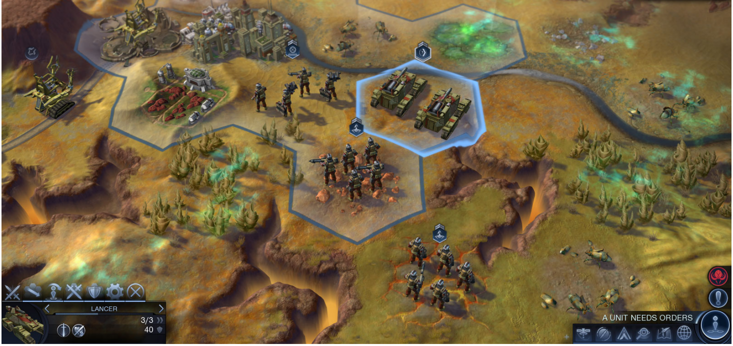
Kraken are gigantic sea-bound aliens, only found in deep waters. Steer clear of them unless you have a very powerful navy. They won't come in to attack your cities.

LANCER

- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 40 Combat. Choice of 10% per unused Movement or 20% when attacking.
- **Prerequisite Tech**: Engineering

SURROGACY (8)
5 AINTZA
TURN: 148

4 Floatstone, Road
Desert
1
Trade Routes:
Prospérité (Franco-Iberia) Aintza (Franco-Iberia)
Le Coeur (Franco-Iberia) Aintza (Franco-Iberia)
Franco-Iberian Trader

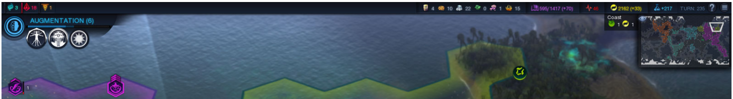

LANCER
3/3
40
A UNIT NEEDS ORDERS

Lancers offer you speed, firepower, and a surprising amount of toughness, as well. Their attack bonus perk is fairly good, but the bonus per point of unused Movement is scary. It makes Lancers harder to kill and still helps them during combat when you don't have to cross the entire field.

Make sure that you have a large number of lancers before getting toward the top of your affinity Experience. These units become Dragoons, and they're quite powerful. Make use of the sudden power jump to cream any enemies that are in your way.

LEV DESTROYER

- **Cost**: 380 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 50 Combat, 84 Ranged Combat
- **Prerequisite Tech**: Tactical LEV


AUGMENTATION (6)
Coast
TURN: 235

10
RANGI
DREADNOUGHT
7/7
32
Ranged Attack 82
A UNIT NEEDS ORDERS

The ultimate Purity unit is the LEV Destroyer, a heavily armed siege and assault platform. LEV Destroyers require Floatstone to construct. Screen them with melee units, and use the Destroyers to weaken anything that gets near your army.

LEV TANK

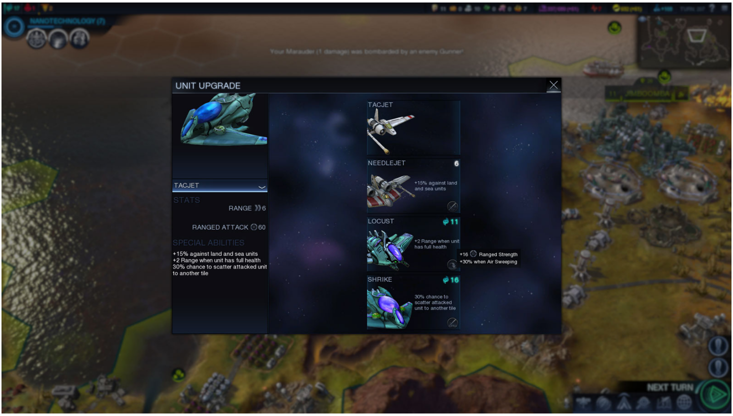
- **Cost**: 180 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 26 Combat, 50 Ranged Combat
- **Prerequisite Tech**: Mobile LEV

FINISHED: SERVOMACHINERY
TURN: 386
Coast
SANTO ADRIÃO
WORKER
2/2
Processing Turn For Aliens
PLEASE WAIT

This a unique Purity unit that requires Floatstone. Use them to weaken targets before your main units attack.

▣ LOCUST

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5
- **Abilities**: 36 Ranged Combat, +50% when air sweeping. Choice of +30% against air units or +2 Range when unit has full Health.
- **Prerequisite Tech**: Robotics


UNIT UPGRADE
TACJET
STATS
RANGE 6
RANGED ATTACK 60
SPECIAL ABILITIES
TACJET
NEEDLEJET 6
LOCUST 11
SHRIKE 16
NEXT TURN

Your Marauder (1 damage) was bombarded by an enemy Gunner!

+15% against land and sea units
+2 Range when unit has full health
30% chance to scatter attacked unit to another tile

+15% against land and sea units

+2 Range when unit has full health

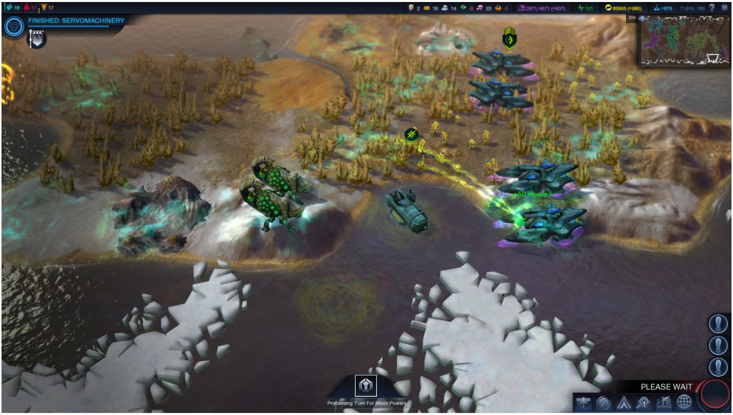
+16 Ranged Strength
+30% when Air Sweeping

30% chance to scatter attacked unit to another tile

Locusts make great aerial Supremacy units when you stack their innate air sweeping bonus with increased damage against air units. Increased Range is wonderful, but it's a real hassle to keep your Locusts healthy all of the time. Make sure to sweep against opponents that have specced for better bombers.

▣ MANTICORE

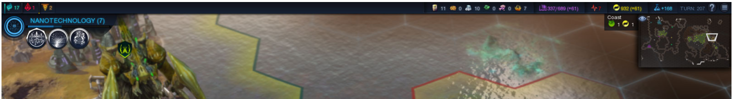
- **Cost**: 50 Production
- **Movement**: 1
- **Range**: 2
- **Abilities**: 4 Combat, 12 Ranged Combat
- **Prerequisite Tech**: None


FINISHED: SERVOMACHINERY
+50 Healed
Processing Turn For Minor Powers
PLEASE WAIT

Manticores are ranged aliens that harass your military troops and can be a modest threat when encountered in numbers or associated with additional aliens. You only get access to Manticores at specific expedition sites. They're weak in melee, and you can easily dispatch them by using anything with decent direct attacks.

MARAUDER

- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 64 Combat. Choice of 30% bonus Strength when attacking in miasma or 30% bonus Strength when defending in miasma.
- **Prerequisite Tech**: Habitation


NANOTECHNOLOGY (7)
Coast

KHRABROST
CHOOSE PRODUCTION

Keep your Marauders doused in miasma so that they can fight at their best. Outside of miasma, they're often outclassed and won't be able to win battles without superior numbers or tactics. Inside miasma, it's the exact opposite.

▣ MARINE

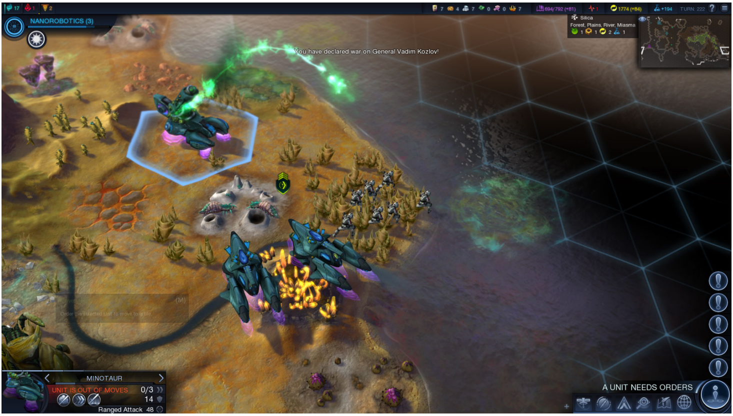
- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 16 Combat. Choice of 20% bonus Strength when attacking or 5 HP Healing/turn when not embarked.
- **Prerequisite Tech**: Habitation

ROBOTICS (2)
Lake
Samatar Jama Barre of African Union
2769 AD
MARINE
UNIT IS OUT OF MOVES
0/2
16
NEXT TURN

Marines are the first upgrade that your civilization gets (from any affinity). Try to secure this quickly so that your soldiers get more Combat Strength. This makes it much harder to lose fights against aliens, so your Marines can patrol safely and clear alien nests without as much risk, especially in groups.

MINOTAUR

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 14 Combat, 48 Ranged Combat, +1 Range, +50% when attacking cities, all terrain costs 1 Movement, levitates over land and sea. Choice of +50% chance to scatter attacked unit to another tile or -1 Setup needed before attacking.
- **Prerequisite Tech**: Computing


NANOROBOTICS (3)
TURN: 222
1774 (+84)
+194
694/792 (+81)
Silica
Forest, Plains, River, Miasma
MINOTAUR
UNIT IS OUT OF MOVES
0/3
14
Ranged Attack 48
A UNIT NEEDS ORDERS

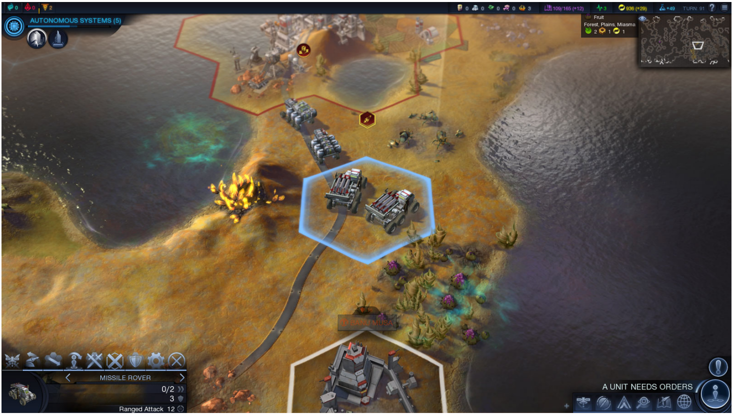
You have declared war on General Vadim Kozlov!

Use Minotaurs to siege cities and push around enemy units. Their scatter perk is useful against Supremacy for dividing its forces (and removing their bonuses for being close together). If you're only using Minotaurs for city siege work, stick with the Setup reduction, as that's wonderful for getting into Range and hitting the city in the same turn.

MISSILE ROVER

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 3 Combat, 12 Ranged Combat

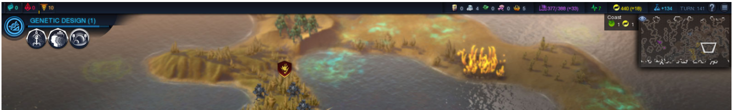
- **Prerequisite Tech**: Computing

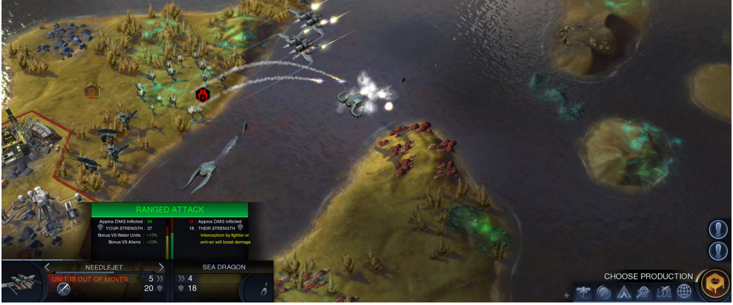

AUTONOMOUS SYSTEMS (5)
TURN: 91
Fruit
Forest, Plains, Miasma
MISSILE ROVER
0/2
3
Ranged Attack 12
A UNIT NEEDS ORDERS

Basic Missile Rovers are adequate ranged units that eventually upgrade into good siege weapons. At first, they're very weak and need both protection and time to get anything done. Use Gunners or Rangers for anti-unit ranged attacks, and wait for upgrades to start deploying more Missile Rovers or Artillery.

NEEDLEJET

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 4
- **Abilities**: 20 Ranged Combat, +1 Range, +20 when air sweeping. Choice of +30% when intercepting or +15% against land and sea units.
- **Prerequisite Tech**: Robotics

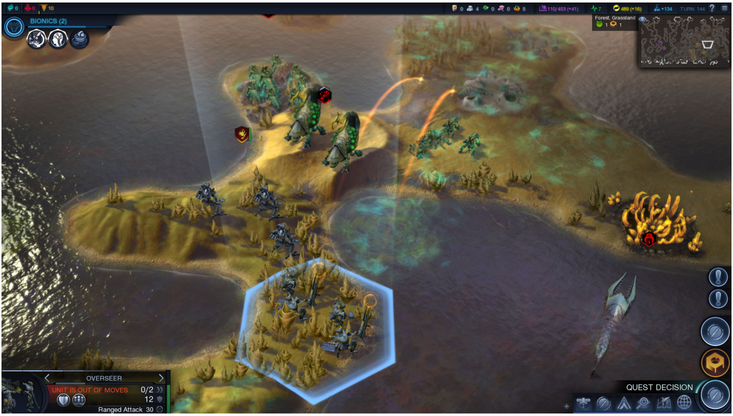

GENETIC DESIGN (1)
TURN: 141
Coast


RANGED ATTACK
Approx DMG Inflicted : 36
YOUR STRENGTH : 27
Bonus VS Water Units : +15%
Bonus VS Aliens : +20%
23 : Approx DMG Inflicted
18 : THEIR STRENGTH
Interception by fighter or anti-air will boost damage
NEEDLEJET
UNIT IS OUT OF MOVES
5
20
SEA DRAGON
4
18
CHOOSE PRODUCTION

Tacjets start off a little weak, but this upgrade makes them so much more powerful. They start to hit farther and harder and can stand up to more units. You still need to use them in groups to bring down targets quickly, but even single Needlejets can wound and expose targets that get too close to your bases (or Carriers).

OVERSEER

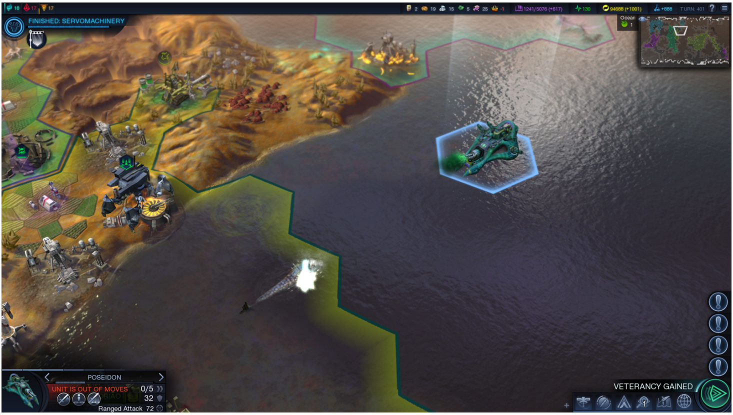
- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 12 Combat, 30 Ranged Combat. Choice of 20% bonus when adjacent to a friendly unit or 40% bonus when attacking a city.
- **Prerequisite Tech**: Physics


BIONICS (2)
Forest, Grassland
TURN: 144
OVERSEER
UNIT IS OUT OF MOVES
0/2
12
Ranged Attack 30
QUEST DECISION

Overseers are much better on offense than most of their affinity rivals. Their 20% bonus is good under all circumstances, in offense and defense. The city bonus is more situational and should only be used if you're a very heavy attacker and want to get the most out of your city siege force. Taking that perk means that you might not need as many Artillery pieces, and that makes your siege forces faster and less vulnerable. A tempting possibility.

POSEIDON

- **Cost**: 120 Production
- **Movement**: 4
- **Range**: 2
- **Abilities**: 32 Combat, 72 Ranged Combat, +1 Range. Choice of Healing even when outside friendly territory or 50% chance to scatter attacked unit to another tile.
- **Prerequisite Tech**: Computing

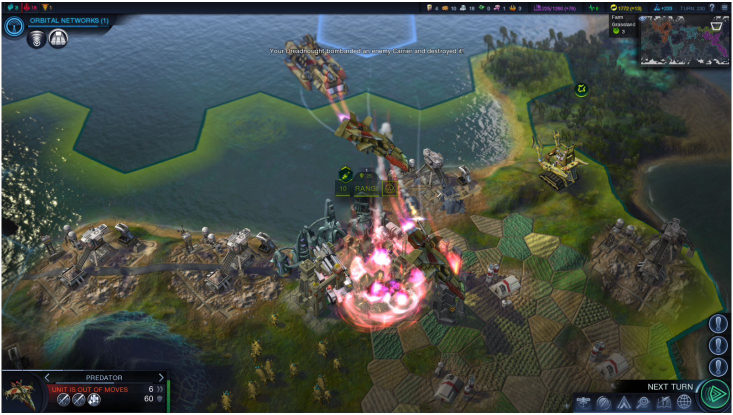

FINISHED: SERVOMACHINERY
Ocean
TURN: 401
POSEIDON
UNIT IS OUT OF MOVES
0/5
32
Ranged Attack 72
VETERANCY GAINED

Poseidons are mean naval units. They can push defenders around, sometimes breaking up their formations. That's quite effective if you're trying to push your way toward Carriers and other vulnerable targets.

PREDATOR

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5

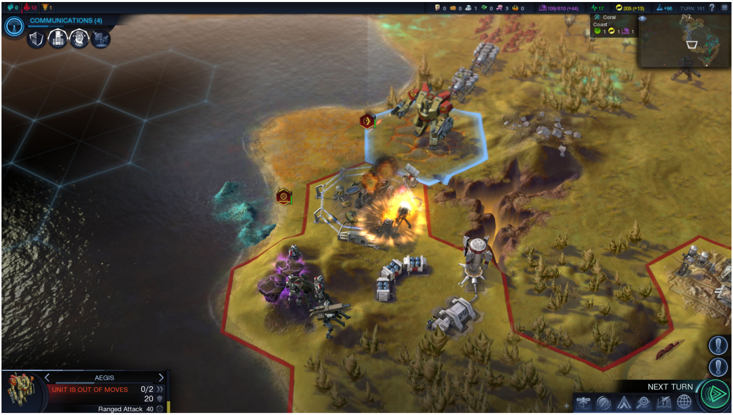
- **Abilities**: 60 Ranged Combat, +1 Range, +40% when air sweeping. Choice of +50% vs. cities or automatically heal every turn.
- **Prerequisite Tech**: Robotics


Your Dreadnought bombarded an enemy Carrier and destroyed it!
ORBITAL NETWORKS (1)
Farm
Grassland
3
TURN: 230
10
RANGI
PREDATOR
UNIT IS OUT OF MOVES
6
60
NEXT TURN

Predators are evil bombers. They make it possible for a siege force to brutalize a city and leave it vulnerable for any unit to rush in and take. Even one turn of exposure is often enough if you bring a full squadron of these air units (using a Carrier or basing them in a nearby city). You force your enemies to deploy many defensive air units, which means that they aren't using those craft to bomb your troops. Even better, those craft are doomed if you take the city. It's a risky lose-lose situation for your opponent.

PRIME AEGIS

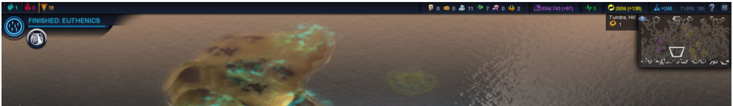
- **Cost**: 140 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: Combat 32, Ranged Combat 40, 1 more attack every turn, +10 HP Healing for adjacent units every turn. Choice of +40% when attacking wounded units or +20% when adjacent to a friendly unit.
- **Prerequisite Tech**: Surrogacy

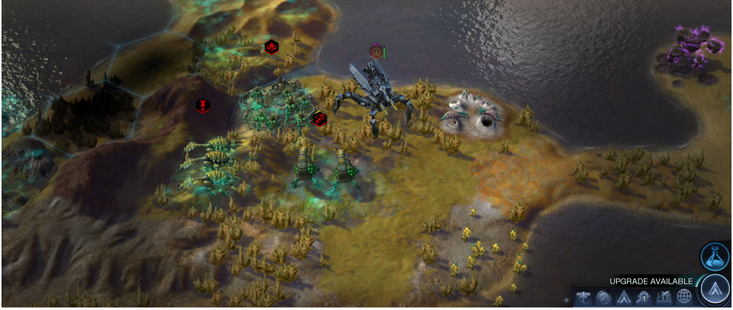

COMMUNICATIONS (4)
Coral
Coast
TURN: 161
AEGIS
UNIT IS OUT OF MOVES
0/2
20
Ranged Attack 40
NEXT TURN

The Prime Aegis is a unique Purity unit. These are great allies for picking off enemies. Use them around the flanks of your group. Though weaker in melee, they still hold up well enough that they don't need as much protection as Gunner or Missile Rover variants.

▣ PRIME ANGEL

- **Cost**: 190 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 84 Combat, 84 Ranged Combat, can move after attacking, all terrain costs 1 Movement. Choice of +30% when attacking or +40% when flanking.
- **Prerequisite Tech**: Neural Uploading

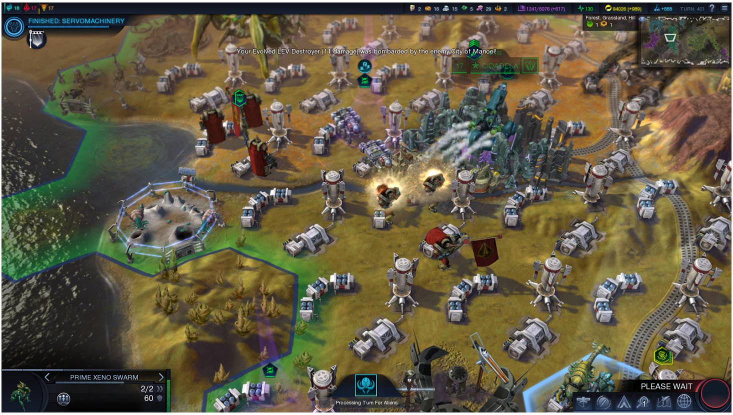

FINISHED: EUTHENICS
Tundra, Hill
TURN: 185


UPGRADE AVAILABLE

This is the ultimate Supremacy unit. Lay waste to your enemies with these tough fighters. They don't worry about counterattacks, they deal tons of damage, and they aren't that easy to kill.

▣ PRIME BATTLESUIT

- **Cost**: 140 Production
- **Movement**: 2
- **Abilities**: 82 Combat, +30% when defending. Choice of +20% when flanking or 20% when next to a friendly unit.
- **Prerequisite Tech**: Servomachinery


18
17
17
2
16
15
5
29
2
1241/5076 (+617)
130
94026 (+989)
+888
TURN: 401
FINISHED: SERVOMACHINERY
Forest, Grassland, Hill
1
1
17
CIDADELA
PRIME XENO SWARM
2/2
60
Processing Turn For Aliens
PLEASE WAIT

Your Evolved LEV Destroyer (11 damage) was bombarded by the enemy City of Manoel!

A unique Purity unit, the Prime Battlesuit is an exosuit that functions as a defender or as an integrated part of a formation. They're more formation-oriented than the other upgraded Battlesuits. This is useful for defensive players who plan on holding their territory and winning by non-Domination victories. The Evolved variant is better for solo defense to hold tiny areas and frustrate enemy movements.

PRIME CARVR

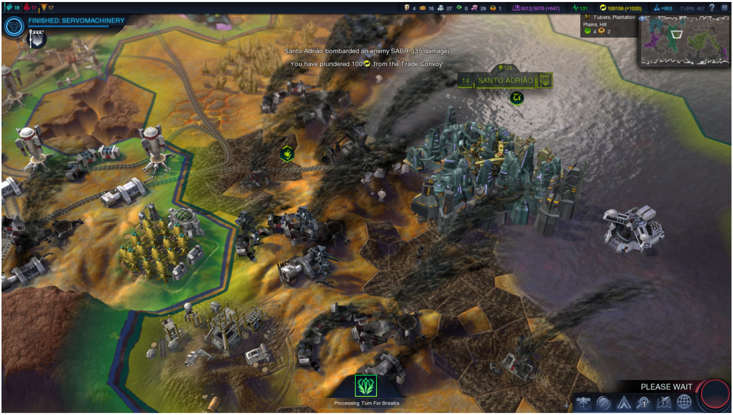
- **Cost**: 150 Production
- **Movement**: 2
- **Abilities**: Combat 86, +15% when next to a friendly unit. Choice of +8% per adjacent friendly unit or +20% when next to a friendly unit.
- **Prerequisite Tech**: Autogyros

FINISHED: SERVOMACHINERY
Grassland
TURN: 402
PLEASE WAIT
Processing Turn For Brasilia

A unique Supremacy unit, Prime CARVRs are decent attackers by themselves, but they're not going to overwhelm the best of your enemy forces. Not surprisingly, they get better when used in formations of Supremacy troops. Flanked by other melee units and supported by ranged units from behind, Prime CARVRs get major bonuses. That's when they really shine.

PRIME CNDR

- **Cost**: 120 Production
- **Movement**: 2
- **Abilities**: 74 Combat, +8% per adjacent friendly unit. Choice of +30% when in own territory or 20% when next to a friendly unit.
- **Prerequisite Tech**: Tactical Robotics


Santo Adrião bombarded an enemy SABR! (35 damage)

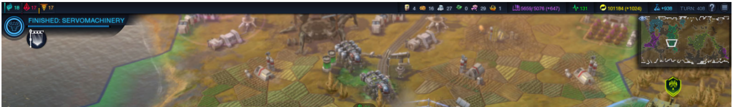
You have plundered 100 from the Trade Convoy!

FINISHED: SERVOMACHINERY
14 SANTO ADRIÃO
Tubers, Plantation
Plains, Hill
TURN: 407
PLEASE WAIT
Processing Turn For Brasilia

Prime CNDRs are unique Supremacy units. Use them for defensive lines in your own territory. They make it quite hard for intruders to get any traction.

PRIME LEV DESTROYER

- **Cost**: 225 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 70 Combat, 108 Ranged Combat, +30% when attacking, +10 HP splash damage to enemy units next to target. Choice of +1 Range when unit has full Health or -1 Setup needed before attacking.
- **Prerequisite Tech**: Tactical LEV


FINISHED: SERVOMACHINERY
TURN: 408

19 MANOEL
Polystralian Evolved Xeno Cavalry
EVOLVED LEV TANK
2/2
48
Ranged Attack 86
CITY CAN ATTACK

The ultimate Purity unit is the Prime LEV Destroyer. Take the reduced Setup time, and support your main line with maximum devastation. Even though these are tough units, you should still screen them with more defensive (and more expendable) units.

PRIME LEV TANK

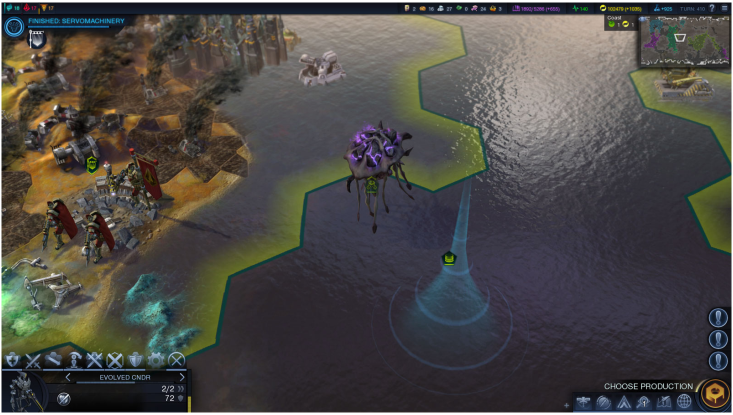
- **Cost**: 180 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 46 Combat, 84 Ranged Combat, +1 Range for anti-orbital strike, +10% per unused Movement Point. Choice of +1 Movement Point or attacking over terrain obstacles.
- **Prerequisite Tech**: Mobile LEV

FINISHED: SERVOMACHINERY
TURN: 408
Progenitor Ruin
Desert
19 MANOEL
PICK A BONUS
EVOLVED XENO CAVALRY
3/3
82
CITY CAN ATTACK

Prime LEV Tanks are unique Purity units. Increased Movement is fairly synergistic for their bonuses, so that's a very strong option. It improves them defensively and offensively, but you must set up your attacks carefully. Take advantage of hills, and avoid rough terrain where you lose your ranged edge. If you're on a map with substantial geographic barriers, being able to attack over terrain might end up being superior after all. Consider the lay of the land before you adopt your perk.

PRIME ROCKTOPUS

- **Cost**: 150 Production
- **Movement**: 1
- **Range**: 2
- **Abilities**: 78 Ranged Combat, +1 Range for anti-orbital strike, generate miasma in orbit. Choice of +30% when attacking or manually deorbit at any time.
- **Prerequisite Tech**: Designer Lifeforms


FINISHED: SERVOMACHINERY
Coast
EVOLVED CNDR
2/2
72
CHOOSE PRODUCTION
TURN: 410

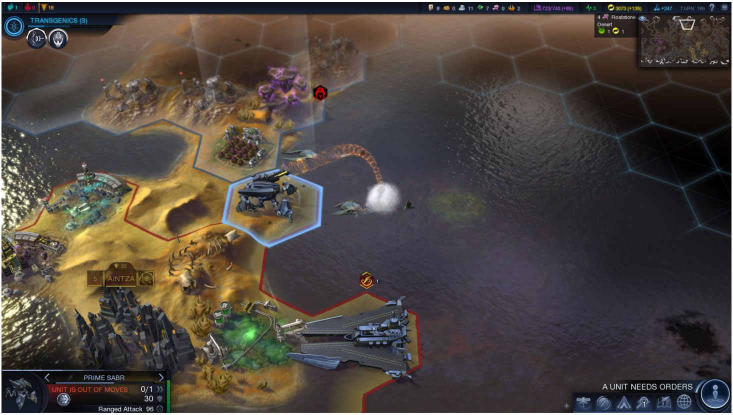
The Prime Rocktopus is a unique Harmony unit. Have it leave orbit to shift positions and keep up with a fast-moving force.

PRIME SABR

- **Cost**: 160 Production
- **Movement**: 1
- **Range**: 3
- **Abilities**: 24 Combat, 98 Ranged Combat, +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles.

Choice of -1 Setup needed before attacking or +12% per adjacent friendly unit.

- **Prerequisite Tech**: Synthetic Thought


TRANSGENICS (3)
TURN: 186
Floatstone
Desert
AINTZA
PRIME SABR
UNIT IS OUT OF MOVES
0/1
30
Ranged Attack 96
A UNIT NEEDS ORDERS

Prime SABRs are unique Supremacy units. Surround them with friendly units to help them let loose a mighty barrage of fire. With such insane Range, SABRs are frightening to anything they approach. Of course, their crippled Movement is the limiting factor for these machines. If used in your cities, give them the adjacency bonus for the best defensive firepower. When used aggressively, you need the Setup reduction so that they can at least fire the round after they get into position. Bring a worker along with your SABRs so that you can construct roads as soon as possible to help them catch up to your forces as they move on to the next victim[el]errr, city.

▣ PRIME XENO CAVALRY

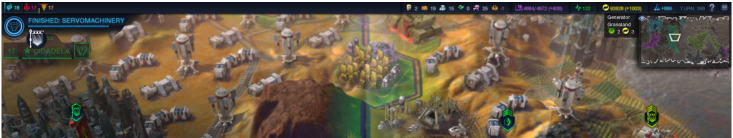
- **Cost**: 130 Production
- **Movement**: 3
- **Abilities**: 70 Combat, all terrain costs 1 Movement. Choice of +40% when in miasma and attacking and +40% when in miasma and defending or +30% when flanking.
- **Prerequisite Tech**: Alien Domestication

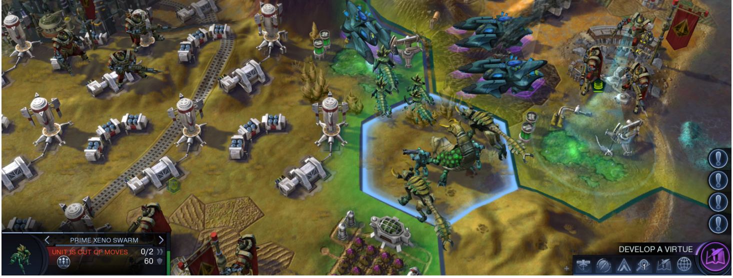
FINISHED: SERVOMACHINERY
Crashed Satellite
Desert
TURN: 408
MANOEL
EVOLVED LEV DESTROYER
UNIT IS OUT OF MOVES
0/2
70
Ranged Attack 112
CITY CAN ATTACK

The Prime Xeno Cavalry is a unique Harmony unit. You can't use this version of Xeno Cavalry as a solo raiding force. You need to either seed the area with miasma or use groups of Xeno Cavalry to flank and eliminate their victims. The latter method is powerful but expensive. If you have a good supply of Xenomass, take the flanking bonus so that you can still have this potent raiding option that isn't miasma-based.

▣ PRIME XENO SWARM

- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 58 Combat, +20% when in miasma and attacking, +20% when in miasma and defending. Choice of 20 HP damage to adjacent enemy units on death or +20% when adjacent to a friendly unit.
- **Prerequisite Tech**: Alien Adaptation

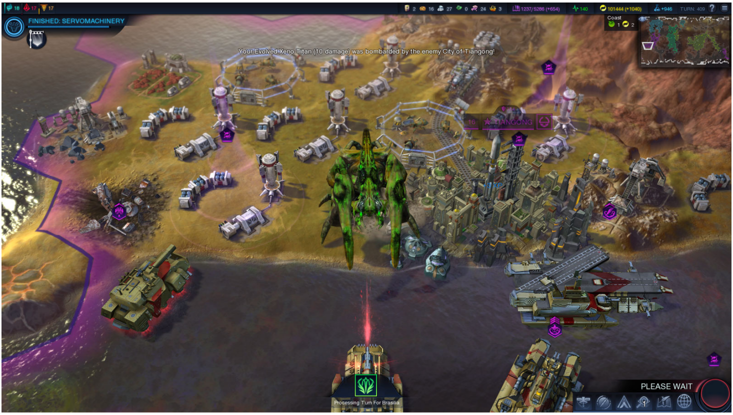

FINISHED: SERVOMACHINERY
CIDADELA
Generator
Grassland
TURN: 399


PRIME XENO SWARM
UNIT IS OUT OF MOVES
0/2
60
DEVELOP A VIRTUE

A unique Harmony unit, Prime Xeno Swarms work really well in clusters at the front of your attack force. Send them into battle, wound your enemies, let the Xeno Swarms die, and let your foes blow up. This clears the way for your serious attackers to break through and take their targets.

PRIME XENO TITAN

- **Cost**: 250 Production
- **Movement**: 2
- **Abilities**: 100 Combat, +50% when defending against ranged units, +20 HP after killing an enemy unit. Choice of +40% when in miasma and attacking and +40 when in miasma and defending or +20% when next to a friendly units.
- **Prerequisite Tech**: Alien Evolution


FINISHED: SERVOMACHINERY
TIANGONG
Coast
PLEASE WAIT
Processing Turn For Brasilia
TURN: 409

Your Evolved Xeno Titan (10 damage) was bombarded by the enemy City of Tiangong!

The ultimate Harmony unit is the Prime Xeno Titan. Being able to get most of your bonus for staying in formation is very tempting. Xeno Titans are already very good, and making them into rank-and-file troops instead of lone attackers is a viable choice. If you give them their adjacency bonus, leave them in the middle of your forward ranks, and support them well with ranged attackers to soften targets. Give Xeno Titans the kills for added Healing.

PROPHET

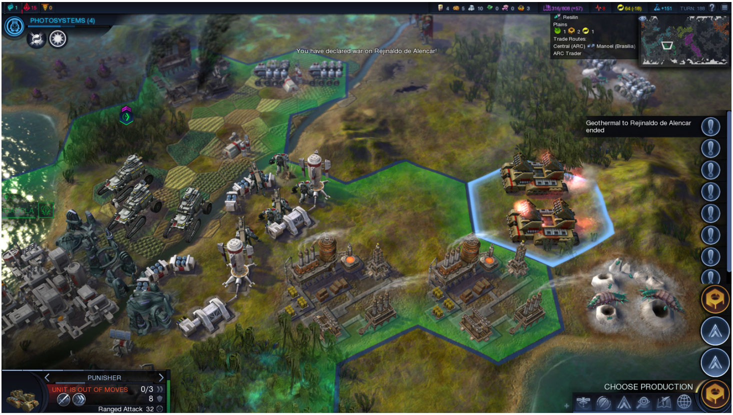
- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 40 Combat. Choice of 30% when attacking wounded units or 20% when adjacent to a friendly unit.
- **Prerequisite Tech**: Engineering

NANOTECHNOLOGY (11)
TURN: 136
Coast
PLEASE WAIT
Processing Turn For Franco-Iberia

Prophets make excellent raiders. Get them into enemy territory, and use a small group of them to wound and then kill each other's targets. They can rip up improvements, steal workers, or even take full cities if your opponent doesn't respond quickly enough.

PUNISHER

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 8 Combat, 32 Ranged Combat, +30% when attacking cities. Choice of +30% when attacking cities or +20% when attacking.
- **Prerequisite Tech**: Computing


PHOTOSYSTEMS (4)
TURN: 188
Reslin
Plains
Trade Routes:
Central (ARC) Manoel (Brasilia)
ARC Trader
PUNISHER
UNIT IS OUT OF MOVES
0/3
8
Ranged Attack 32
CHOOSE PRODUCTION

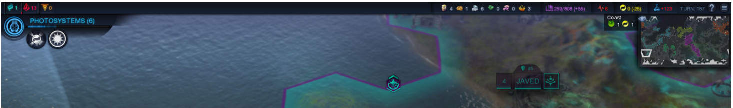
You have declared war on Rejinaldo de Alencar!

Geothermal to Rejinaldo de Alencar ended

Punishers are pure city attackers. Use other ranged units for fighting enemy troops, and let the Punishers do their jobs to bring down city defenses. Don't waste much time on their tepid anti-unit attacks unless you're in the open field.

RAIDER

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5
- **Abilities**: 36 Ranged Combat, +50% when air sweeping. Choice of +30% against air units or 25% against land and sea units
- **Prerequisite Tech**: Robotics


PHOTOSYSTEMS (6)
TURN: 187
Coast
JAVED

RAIDER
UNIT IS OUT OF MOVES
5
36
A UNIT NEEDS ORDERS

Raiders make good anti-air units or decent tactical bombers. Use them to defend your territory or help provide cover as your forces advance into enemy areas.

RANGER

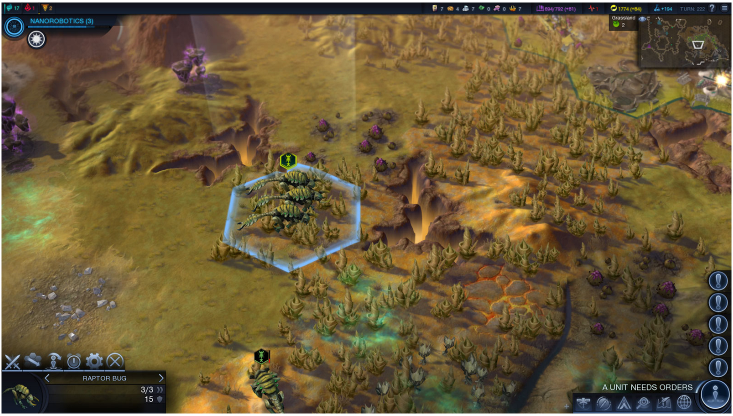
- **Cost**: 50 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 3 Combat, 8 Ranged Combat
- **Prerequisite Tech**: Physics

PIONEERING (6)
10/37 (+3)
70 (+11)
TURN: 20
Forest, Grassland, River, Miasma
RANGER
UNIT IS OUT OF MOVES
0/2
3
Ranged Attack 8
A UNIT NEEDS ORDERS

Rangers are the basic ranged troop for the early game. They're best used inside cities to shoot out safely at aliens and attackers, but they're also great when protected by melee units. Position melee troops in front of the Ranger, and let your ranged attacks deal free damage to any targets that come after the group.

RAPTOR BUG

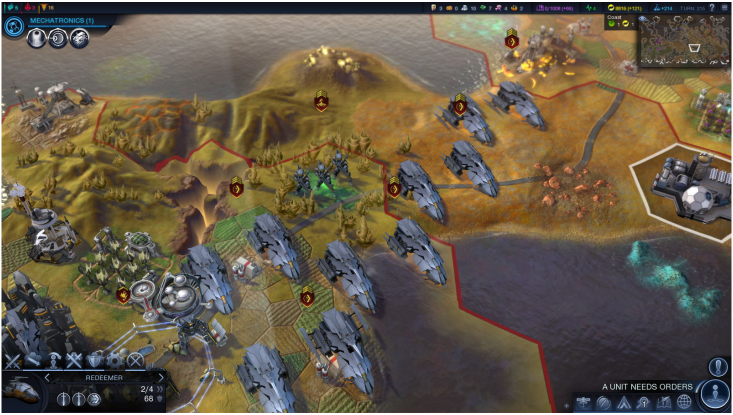
- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 15 Combat
- **Prerequisite Tech**: None


NANOROBOTICS (3)
Grassland
2
TURN: 222
RAPTOR BUG
3/3
15
A UNIT NEEDS ORDERS

These are fast alien ground units. You might get them from rare expeditions, but most of the time, you're going to fight against them. Watch out especially when you have workers, colonists, and explorers near Raptors; these enemies can tear out of rough terrain and grab your people quite easily. Bring a military escort along when you're anywhere near alien nests, miasma, or unknown terrain.

REDEEMER

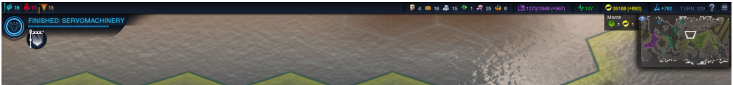
- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 68 Combat, +1 Movement, all terrain costs 1 Movement, levitates over land and sea. Choice of +30% when flanking or ignore zones of control when moving.
- **Prerequisite Tech**: Engineering


MECHATRONICS (1)
Coast
REDEEMER
2/4
68
A UNIT NEEDS ORDERS
TURN: 215

Send Redeemers in packs if you take their flanking bonus. This lets them quickly scout, engage, and kill smaller groups of foes. If you're in the mood for more risky behavior, use the anti-zone of control perk instead. This allows individual Redeemers to move around the field even in the middle of large battles. They're excellent at rolling through ranged and siege units because you can fly directly past their melee defenders without having to take a huge detour. This is also quite effective when surrounding cities. Redeemers get into position very quickly, letting you encircle the sieged area without many turns of preparation.

▣ ROCKTOPUS

- **Cost**: 280 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 60 Ranged Combat
- **Prerequisite Tech**: Designer Lifeforms


FINISHED: SERVOMACHINERY
Marsh
TURN: 329

PEMBELA
12
PICK A BONUS
COBRA
4/4
68
CHOOSE PRODUCTION

A unique Harmony unit, these creatures enter orbit to provide ranged support, and they can then move to new orbits for a minor cost. Rocktopi require Xenomass and Floatstone to construct. Watch out for enemies with decent Artillery units; they're able to shoot your Rocktopi out of the sky without much effort.

SABR

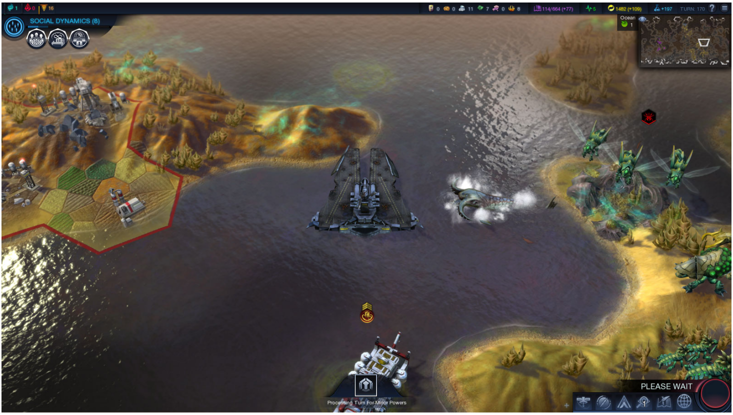
- **Cost**: 320 Production
- **Movement**: 1
- **Range**: 3
- **Abilities**: 16 Combat, 58 Ranged Combat
- **Prerequisite Tech**: Synthetic Thought

FINISHED: NEURAL UPLOADING
11
USPEKH
HEKIMA
TURN: 161
SABR
UNIT IS OUT OF MOVES
0/1
16
Ranged Attack 58
UPGRADE AVAILABLE

A unique Supremacy unit, SABRs are essentially slow-moving Artillery with an extremely long Range. They require Firaxite to construct. Use them as heavy defenders for your cities, or build roads into enemy territory to get them into position for siege attacks. They eventually promote into even heavier Artillery (with ludicrous Range).

SEA DRAGON

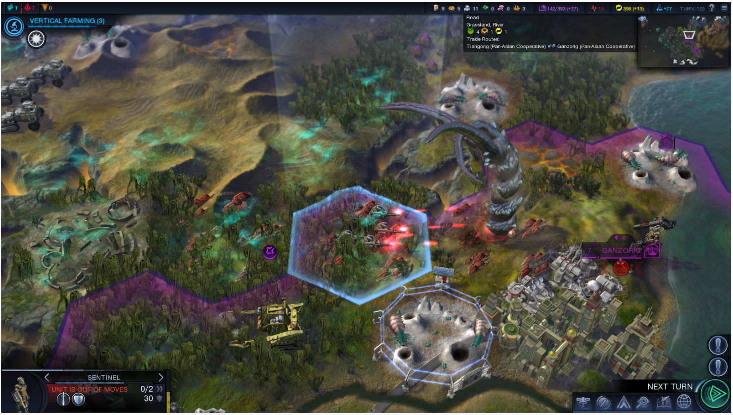
- **Cost**: 50 Production
- **Movement**: 4
- **Abilities**: 18
- **Prerequisite Tech**: None


SOCIAL DYNAMICS (8)
TURN: 170
Ocean
PLEASE WAIT
Processing Turn For Minor Powers

Sea Dragons are common alien naval units that patrol the waters of the new world. They love to eat your trade vessels. Unless you're living in peace with the aliens, it's good to have naval units near the coasts to hunt for these pests. Ranged coastal defenders are also useful for this purpose because Sea Dragons swim close to shore.

SENTINEL

- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 30 Combat. Choice of 30% defensive bonus Strength or 10% bonus Strength/unused Movement Point.
- **Prerequisite Tech**: Habitation


VERTICAL FARMING (3)
Road
Grassland, River
Trade Routes:
Tiangong (Pan-Asian Cooperative)
Ganzorig (Pan-Asian Cooperative)
GANZORIG
SENTINEL
UNIT IS OUT OF MOVES
0/2
30
NEXT TURN

Sentinels are geared toward defensive maneuvers and holding fortified locations. Keep them in rough terrain near your vulnerable cities or units and fortify them. They're not there to kill; they're there to be a nasty roadblock.

▣ SERAPH

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5
- **Abilities**: 60 Ranged Combat, +1 Range, +40% when air sweeping. Choice of +1 more Interception every turn or 1 rebase costs no Movement.
- **Prerequisite Tech**: Robotics

EUTHENICS (9)

You have declared war on Élodie!

SERAPH
UNIT IS OUT OF MOVES
8
60
A UNIT NEEDS ORDERS

Seraphs are the most mobile of air units. They don't kill their targets as quickly as some rivals, but they can cross distances very quickly. Being able to rebase free of charge makes you incredibly flexible on defense and attack. It's great for a dominator who has multiple fronts to worry about. Bonus interceptions are best when you know your enemy and are certain that they're going to be hassling you with air power all the time (e.g., Pan-Asian Cooperative or human players that you know well).

SHEPHERD

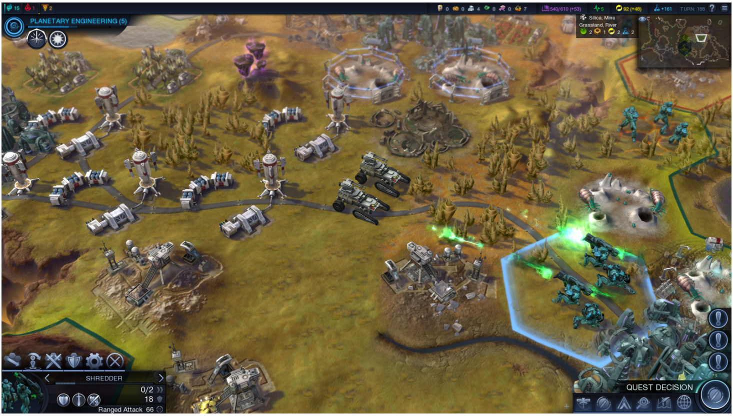
- **Cost**: 160 Production
- **Movement**: 3
- **Abilities**: Combat 44, +1 Movement, +1 capacity for aircraft. Choice of +2 Range for onboard aircraft or +1 capacity as a base for aircraft.
- **Prerequisite Tech**: Fabrication

SOCIAL DYNAMICS (7)
TURN: 171
Coast
WORKER
3/3
Processing Turn For Minor Powers
PLEASE WAIT

Shepherds get great Range for their aircraft, making it possible to hit targets from so far away that they won't respond effectively. This removes one of the biggest weaknesses of all Carrier variants (that they're sitting ducks). The farther away from battle you operate, the safer you are.

SHREDDER

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 18 Combat, 66 Ranged Combat. Choice of being able to move after attacking or all terrain costing 1 Movement.
- **Prerequisite Tech**: Physics


PLANETARY ENGINEERING (5)
Silica, Mine
Grassland, River
540/610 (+53)
TURN: 188
SHREDDER
0/2
18
Ranged Attack 66
QUEST DECISION

You don't get tons of Movement out of these units, but they still make devoted raiders. Give them terrain advantages if you're taking them into enemy territory often, or let them move after attacking to make defensive operations even more successful.

SHRIKE

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 5
- **Abilities**: 60 Ranged Combat, +1 Range, +40% when air sweeping. Choice of +30% chance to scatter attacked units to another tile or +25 HP Healing after killing an enemy unit.

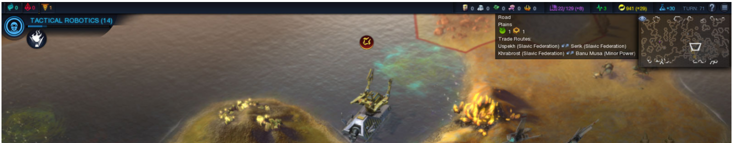
- **Prerequisite Tech**: Robotics

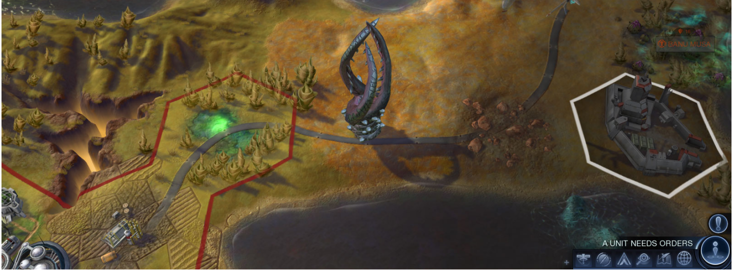
NANOROBOTICS (2)
Fruit
Forest, Plains, River
TURN: 223
SHRIKE
UNIT IS OUT OF MOVES
6
60
A UNIT NEEDS ORDERS

Shrikes are fun no matter how you use them. Taking the Healing option gives you a different style of bombing compared with most air units. Instead of going early to soften enemies for your mainline troops, you use Shrikes as finishers so that they stay healthy and don't have as much downtime.

SIEGE WORM

- **Cost**: 70 Production
- **Movement**: 1
- **Abilities**: 60 Combat
- **Prerequisite Tech**: None

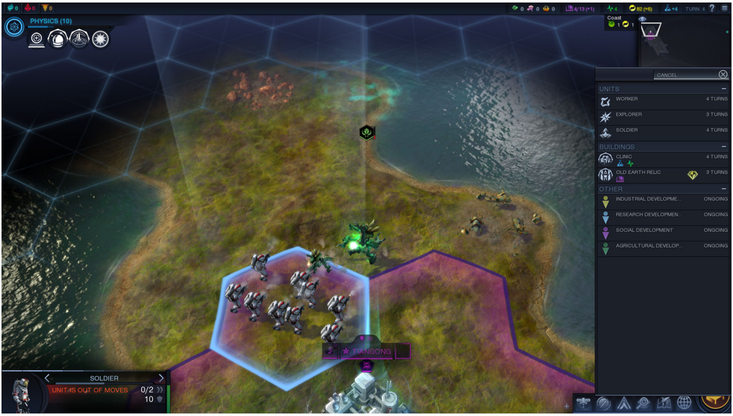

TACTICAL ROBOTICS (14)
Road
Plains
Trade Routes:
Uspekh (Slavic Federation) Serik (Slavic Federation)
Khrabrost (Slavic Federation) Banu Musa (Minor Power)
TURN: 71


BANU MUSA
A UNIT NEEDS ORDERS

Siege Worms are massive aliens that move around the land, looking for things to squish. They break improvements just by entering the territory, and their massive Health makes it hard to destroy them. They can even take out outposts or small cities if you're not careful. Use city strikes, ranged attacks, and heavier melee troops to bring them down. Try to avoid direct confrontations with Siege Worms in the early game; they can break through multiple units without breaking a sweat. It's better to avoid them or construct ultrasonic fences when they get uncomfortably close to your homes.

▣ SOLDIER

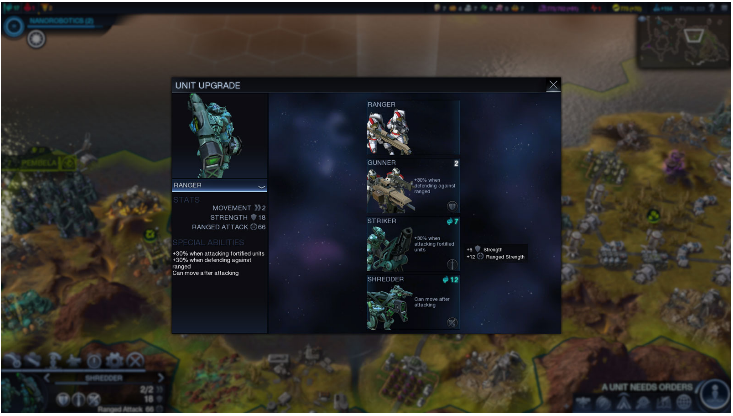
- **Cost**: 50 Production
- **Movement**: 2
- **Abilities**: 10 Combat
- **Prerequisite Tech**: Habitation


PHYSICS (10)
4/13 (+1)
4
82 (+6)
+4
TURN: 4
Coast
1
1
CANCEL
UNITS
WORKER
4 TURNS
EXPLORER
3 TURNS
SOLDIER
4 TURNS
BUILDINGS
CLINIC
4 TURNS
OLD EARTH RELIC
3 TURNS
OTHER
INDUSTRIAL DEVELOPME...
ONGOING
RESEARCH DEVELOPMEN...
ONGOING
SOCIAL DEVELOPMENT
ONGOING
AGRICULTURAL DEVELOP...
ONGOING
TIANGONG
SOLDIER
UNIT IS OUT OF MOVES
0/2
10

Soldiers are basic infantry units that gain new abilities and specializations with increased affinity levels. They're good escorters and defenders and can still launch decent attacks.

▣ STRIKER

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 12 Combat, 30 Ranged Combat. Choice of 25 HP Healing after killing an enemy unit or 30% Strength when attacking fortified units.
- **Prerequisite Tech**: Physics


UNIT UPGRADE
RANGER
STATS
SPECIAL ABILITIES
RANGER
GUNNER
2
STRIKER
7
SHREDDER
12
A UNIT NEEDS ORDERS

MOVEMENT 2
STRENGTH 18
RANGED ATTACK 66

+30% when attacking fortified units
+30% when defending against ranged
Can move after attacking

GUNNER: +30% when defending against ranged

STRIKER: +30% when attacking fortified units

+6 Strength
+12 Ranged Strength

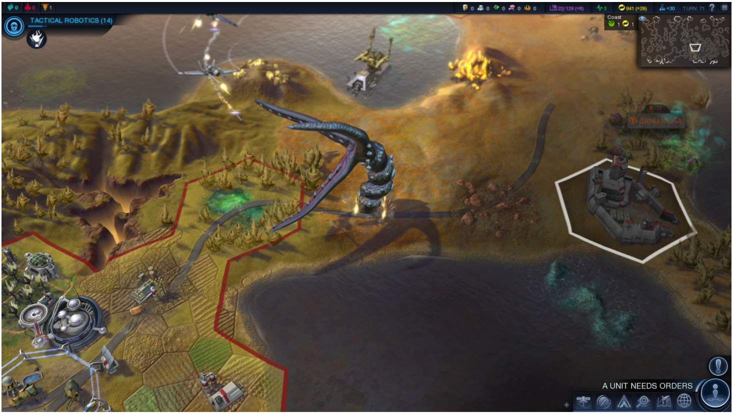
SHREDDER: Can move after attacking

Strikes can be specced to take out fortified units more easily than their rivals. Healing isn't usually as useful for them because they tend to either live or die in each engagement (if you protect them, they live; if enemies make it to them, they'll die). Thus, Healing isn't their primary concern, like it would be for a melee unit. Instead, focus on dealing damage as best as you can. Have them soften fortified units that are holding rough terrain. Force your opponent to come out and fight, or to take the free hits.

▣ TACJET

- **Cost**: 100 Production
- **Movement**: N/A, deployed from Carrier or base
- **Range**: 4
- **Abilities**: 10 Ranged Combat

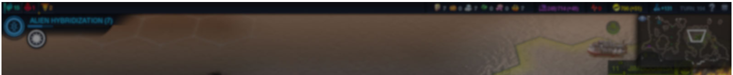
- **Prerequisite Tech**: Robotics

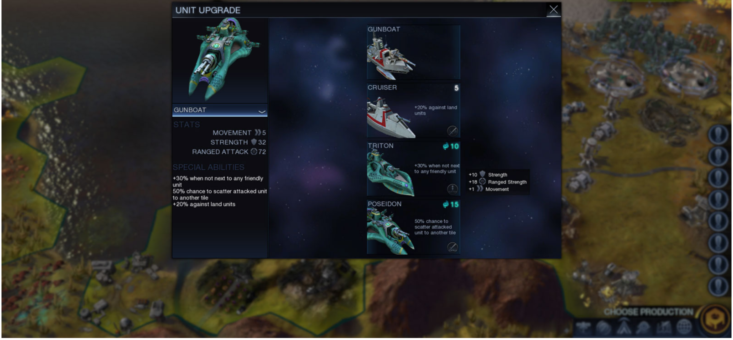

TACTICAL ROBOTICS (14)
Coast
TURN: 71
BANU MUSA
A UNIT NEEDS ORDERS

Tacjets are basic air units. They run air sweeps to defend against other aerial craft, or they are used as bombers to soften ground units and cities. In their early generations, these craft are weak and don't deal much damage. They're better at supplementing damage that your ground units cause. Later on, they evolve into deadly attackers that can kill units or leave cities fully exposed.

TRITON

- **Cost**: 120 Production
- **Movement**: 3
- **Range**: 2
- **Abilities**: 16 Combat, 46 Ranged Combat, +1 Movement. Choice of 30% when not next to a friendly unit or 40% when attacking cities.
- **Prerequisite Tech**: Computing


ALIEN HYBRIDIZATION (7)



UNIT UPGRADE

GUNBOAT

STATS

MOVEMENT 5

STRENGTH 32

RANGED ATTACK 72

SPECIAL ABILITIES

+30% when not next to any friendly unit

50% chance to scatter attacked unit to another tile

+20% against land units

GUNBOAT

CRUISER 5

+20% against land units

TRITON 10

+30% when not next to any friendly unit

POSEIDON 15

50% chance to scatter attacked unit to another tile

+10 Strength

+18 Ranged Strength

+1 Movement

CHOOSE PRODUCTION

Tritons are gifted aquatic raiders. Their bonuses when soloing are wonderful for coastal bombardment against a mix of cities, land units, and naval units (this is great for island maps). Their bonus against cities alone is only superior if you want to use Tritons in heavy packs to take cities and aren't worried much about naval reprisals (more common on maps with higher land percentages).

▣ TRUE AEGIS

- **Cost**: 140 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: Combat 32, Ranged Combat 40, 1 more attack every turn, +10 HP Healing for adjacent units every turn. Choice of +40% when attacking wounded units or +60% when inside a city.
- **Prerequisite Tech**: Surrogacy

Your Evolved LEV Destroyer (8 damage) was bombarded by an enemy Minotaur!

A Farm has been destroyed by a marauding Brasilian Cobra!

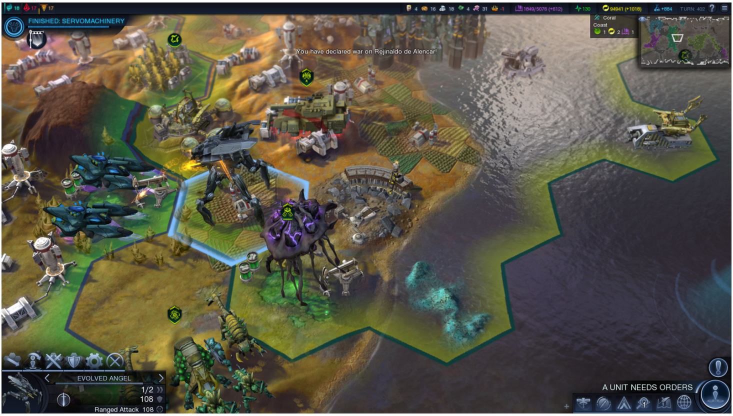
FINISHED: SERVOMACHINERY
CIDADELA
Generator, Magrail
Grassland
TURN: 397

EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
Processing Turn For Aliens
Intruder Alert!
PLEASE WAIT

A unique Purity unit, True Aegises make incredible city defenders all the way through the late game. If you're totally on offense and don't think defense is an issue at all, use the bonus against wounded units instead, and have your Aegis units double attack things after aircraft or melee units have had their fun.

TRUE ANGEL

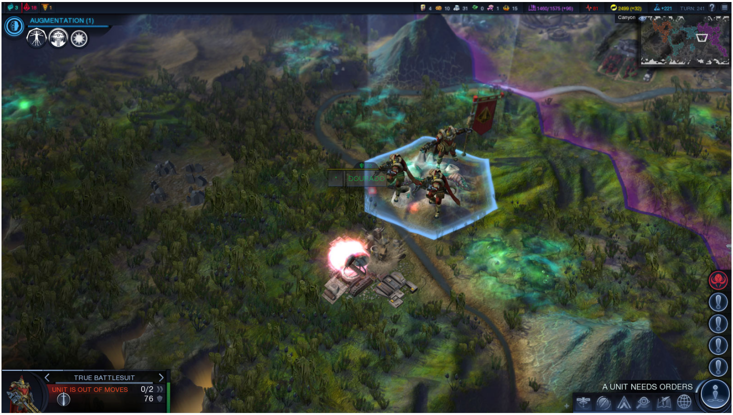
- **Cost**: 190 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 84 Combat, 84 Ranged Combat, can move after attacking, all terrain costs 1 Movement. Choice of +30% when attacking or +15% per unused Movement Point.
- **Prerequisite Tech**: Neural Uploading


You have declared war on Rejinaldo de Alencar!
FINISHED: SERVOMACHINERY
TURN: 402
Coral Coast
EVOLVED ANGEL
1/2
108
Ranged Attack 108
A UNIT NEEDS ORDERS

The ultimate Supremacy unit is the True ANGEL, a flexible battle platform that is slightly more defensively oriented but fully capable on any battlefield. The 15% unused Movement bonus is incredibly flexible, even on a unit with only 2 Movement.

TRUE BATTLESUIT

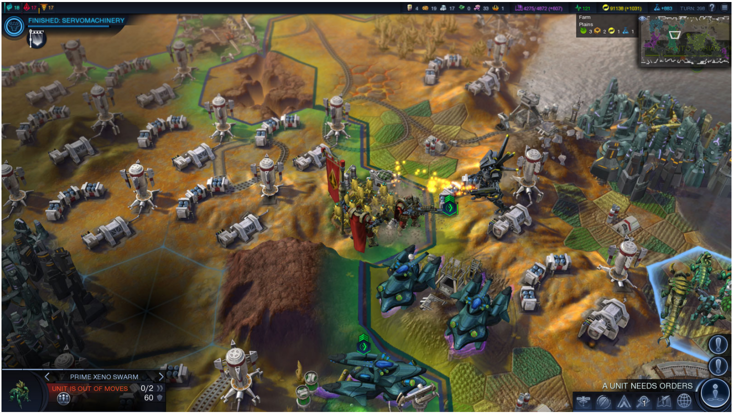
- **Cost**: 140 Production
- **Movement**: 2
- **Abilities**: 82 Combat, +30% when defending. Choice of +20% when flanking or 30% when attacking.
- **Prerequisite Tech**: Servomachinery


AUGMENTATION (1)
Canyon
TURN: 241
DOURADO
TRUE BATTLESUIT
UNIT IS OUT OF MOVES
0/2
76
A UNIT NEEDS ORDERS

True Battlesuits are unique Purity units. They're heavily armed exosuits that gain bonuses for attack and defense. Use them for almost any occasion. They're great at screening more vulnerable units.

TRUE CARVR

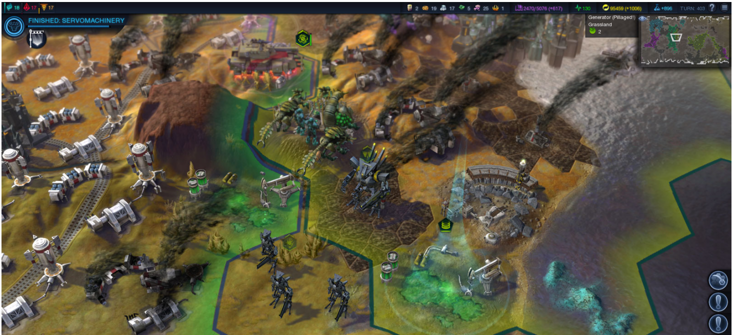
- **Cost**: 150 Production
- **Movement**: 2
- **Abilities**: Combat 86, +15% when next to a friendly unit. Choice of +8% per adjacent friendly unit or +30% when attacking.
- **Prerequisite Tech**: Autogyros

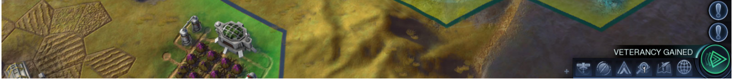

FINISHED: SERVOMACHINERY
TURN: 398
Farm
Plains
PRIME XENO SWARM
UNIT IS OUT OF MOVES
0/2
60
A UNIT NEEDS ORDERS

True CARVRs are unique Supremacy units. Stack their bonuses by putting them in large groups, and force your way through chokepoints or sieges.

▣ TRUE CNDR

- **Cost**: 120 Production
- **Movement**: 2
- **Abilities**: 74 Combat, +8% per adjacent friendly unit. Choice of +30% when in own territory or 30% when defending.
- **Prerequisite Tech**: Tactical Robotics

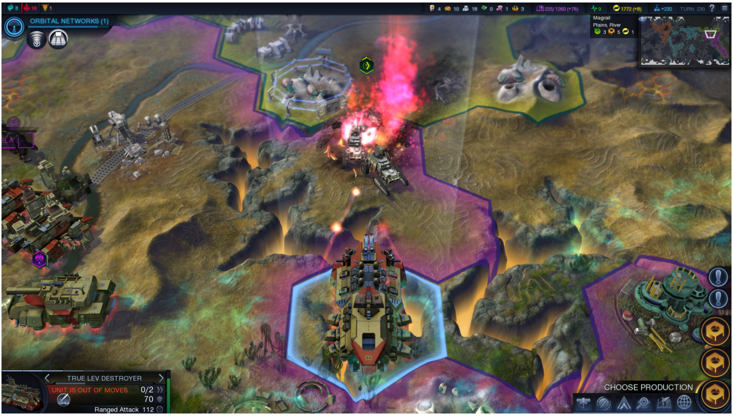

FINISHED: SERVOMACHINERY
TURN: 403
Generator (Pillaged!)
Grassland
2


VETERANCY GAINED

True CNDRs are unique Supremacy units. Fight on familiar terrain, and make the invaders pay.

TRUE LEV DESTROYER

- **Cost**: 225 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 70 Combat, 108 Ranged Combat, +30% when attacking, +10 HP splash damage to enemy units next to target. Choice of +1 Range when unit has full Health or 15 HP splash damage to enemy units next to target.
- **Prerequisite Tech**: Tactical LEV


ORBITAL NETWORKS (1)
Magrail
Plains, River
TURN: 230
TRUE LEV DESTROYER
UNIT IS OUT OF MOVES
0/2
70
Ranged Attack 112
CHOOSE PRODUCTION

The ultimate Purity unit is the True LEV Destroyer. Load on the splash damage, and force enemies to either split up or deal with the extra pain. These are some of the best anti-Supremacy weapons in the game.

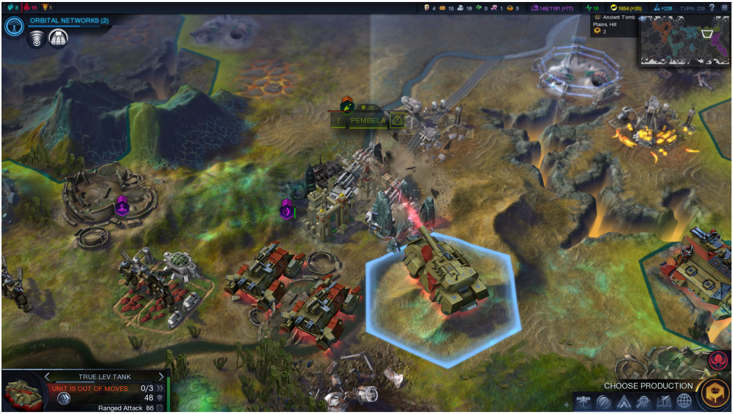
TRUE LEV TANK

- **Cost**: 180 Production
- **Movement**: 2

- **Range**: 2

- **Abilities**: 46 Combat, 84 Ranged Combat, +1 Range for anti-orbital strike, +10% per unused Movement Point. Choice of +1 Movement Point or +10% per unused Movement Point.

- **Prerequisite Tech**: Mobile LEV


ORBITAL NETWORKS (2)
TURN: 229
Ancient Tomb
Plains, Hill
PEMBELA
TRUE LEV TANK
UNIT IS OUT OF MOVES
0/3
48
Ranged Attack 86
CHOOSE PRODUCTION

A unique Purity unit, True LEV Tanks are potent on offense and defense. Keep them in place to maximize damage to encroaching forces. Put them on hills with a good view of an area, and use a ground unit to watch their approach. Between the two, these units can put down many threats.

TRUE ROCKTOPUS

- **Cost**: 150 Production

- **Movement**: 1

- **Range**: 2

- **Abilities**: 78 Ranged Combat, +1 Range for anti-orbital strike, generate miasma in orbit. Choice of +30% when attacking or +2 Orbital Coverage provided by this unit.

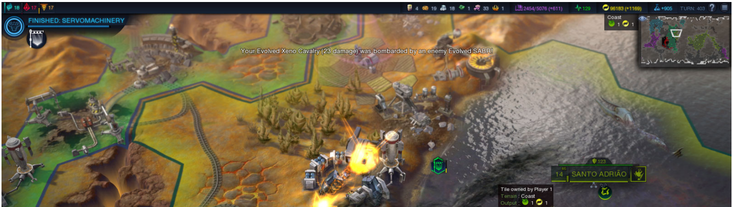
- **Prerequisite Tech**: Designer Lifeforms

AUGMENTATION (3)
RICHPORT
TRUE LEV TANK
UNIT IS OUT OF MOVES
0/3
48
Ranged Attack 86
A UNIT NEEDS ORDERS
Titanium, Mine
Grassland, Hill

The True Rocktopus is a unique Harmony unit. Improve the area of Orbital Coverage for increased miasma generation without as much prep time.

▣ TRUE SABR

- **Cost**: 160 Production
- **Movement**: 1
- **Range**: 3
- **Abilities**: 24 Combat, 98 Ranged Combat, +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles. Choice of -1 Setup needed before attacking or +30% when attacking.
- **Prerequisite Tech**: Synthetic Thought


Your Evolved Xeno Cavalry (23 damage) was bombarded by an enemy Evolved SABR!

FINISHED: SERVOMACHINERY
SANTO ADRIÃO
Tile owned by Player 1
Terrain : Coast
Output :
Coast

Processing Turn For Aliens
PLEASE WAIT

A unique Supremacy unit, true SABRs can rain down pain and suffering. Grab the attack bonus for non-mobile defensive use, or remove the Setup time if you're taking SABRs out on the road. They're always a hassle to use, but the results are undeniable.

TRUE XENO CAVALRY

- **Cost**: 130 Production
- **Movement**: 3
- **Abilities**: 70 Combat, all terrain costs 1 Movement. Choice of +40% when in miasma and attacking and +40% when in miasma and defending or +10% per unused Movement Point.
- **Prerequisite Tech**: Alien Domestication

FINISHED: SERVOMACHINERY
TURN: 400
Farm
Grassland
MANOEL
EVOLVED BATTLESUIT
2/2
76
VETERANCY GAINED

True Xeno Cavalry are unique Harmony units. The other affinity variants make superior raiders; True Xeno Cavalry are better homebodies, patrolling around or near your borders. The more they move, the less effective they are. If you take their miasma bonuses, you're in better shape, but then you have to seed areas before attacking them.

TRUE XENO SWARM

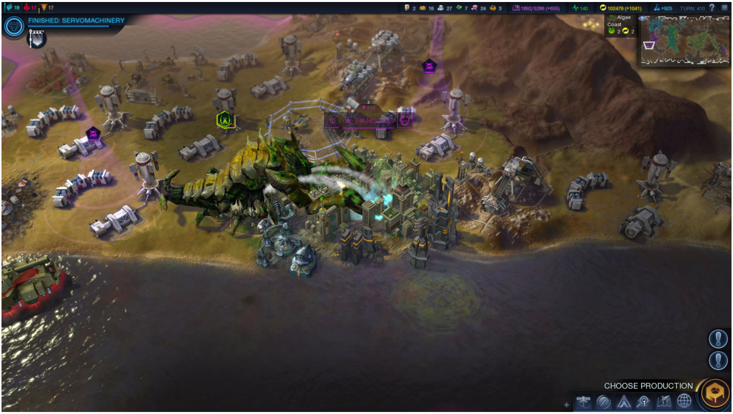
- **Cost**: 100 Production
- **Movement**: 2
- **Abilities**: 58 Combat, +20% when in miasma and attacking, +20% when in miasma and defending. Choice of 20 HP damage to adjacent enemy units on death or +30% when attacking.
- **Prerequisite Tech**: Alien Adaptation

FINISHED: SERVOMACHINERY
Farm
Grassland
TURN: 399
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
DEVELOP A VIRTUE

A unique Harmony unit, True Xeno Swarms are miasma specialists that are best on the attack. Run them into large groups of enemy units, and fight to the death. Use them expendably, and bring in your serious forces while your enemies are still trying to recover.

TRUE XENO TITAN

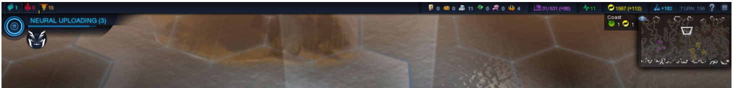
- **Cost**: 250 Production
- **Movement**: 2
- **Abilities**: 100 Combat, +50% when defending against ranged units, +20 HP after killing an enemy unit. Choice of +40% when in miasma and attacking and +40 when in miasma and defending or +50% when attacking cities.
- **Prerequisite Tech**: Alien Evolution


FINISHED: SERVOMACHINERY
TIANGONG
Algae
Coast
TURN: 410
CHOOSE PRODUCTION

The ultimate Harmony unit is the True Xeno Titan, a juggernaut that leaves no city standing. Use Xeno Titans as melee siege units. They crush cities with only a slight amount of prep time. A couple of aircraft or mobile units can easily lead the way for a Xeno Titan to take most cities.

▣ VINDICATOR

- **Cost**: 120 Production
- **Movement**: 4
- **Range**: 2
- **Abilities**: 32 Combat, 72 Ranged Combat, +1 Range. Choice of +1 capacity as base for aircraft or can move after attacking.
- **Prerequisite Tech**: Computing

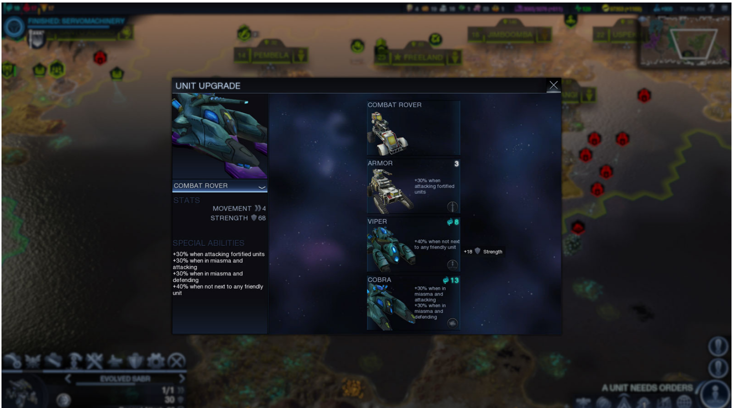

NEURAL UPLOADING (3)
Coast
TURN: 156

VINDICATOR
2/7
32
Ranged Attack 72
7
LE COEUR
A UNIT NEEDS ORDERS

Vindicators are intriguing. They either become great water raiders, with the ability to strike and fade, or they can act as smaller Carriers with increased survivability. For smaller navies, take the attack and move perk. You can maintain a strong advantage over other small forces. In larger engagements, you really could use the extra aircraft. This forces your opponent to divide their attention between your Carriers and Vindicators, both of which have units stationed on them. Even if they sink one of the ships, you still have more air power ready than you would otherwise.

VIPER

- **Cost**: 60 Production
- **Movement**: 3
- **Abilities**: 40 Combat. Choice of 40% bonus when alone or pillaging costs no Movement and gives 25 HP Healing (when not embarked).
- **Prerequisite Tech**: Engineering


UNIT UPGRADE
COMBAT ROVER
STATS
MOVEMENT 4
STRENGTH 68
SPECIAL ABILITIES
COMBAT ROVER
ARMOR 3
VIPER 8
COBRA 13
+18 Strength

+30% when attacking fortified units
+30% when in miasma and attacking
+30% when in miasma and defending
+40% when not next to any friendly unit

ARMOR: +30% when attacking fortified units

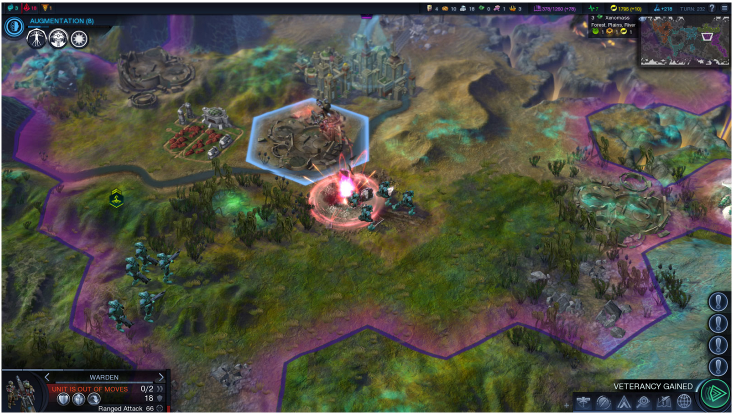
VIPER: +40% when not next to any friendly unit

COBRA: +30% when in miasma and attacking
+30% when in miasma and defending

Vipers are raiders, through and through. Both perks help them with this role. Superior pillaging won't win them battles, but it's arguably the more powerful option if you are looking to raid but not take cities with them. Free pillaging lets you engage much larger nations and deal frustrating damage without much comeuppance. The lone wolf bonus is better if you are attacking weaker nations and are looking to score free workers and cities rather than slow your opponents down.

WARDEN

- **Cost**: 100 Production
- **Movement**: 2
- **Range**: 2
- **Abilities**: 18 Combat, 66 Ranged Combat. Choice of attacking over terrain obstacles or +1 Range when no Movement Points are spent.
- **Prerequisite Tech**: Physics

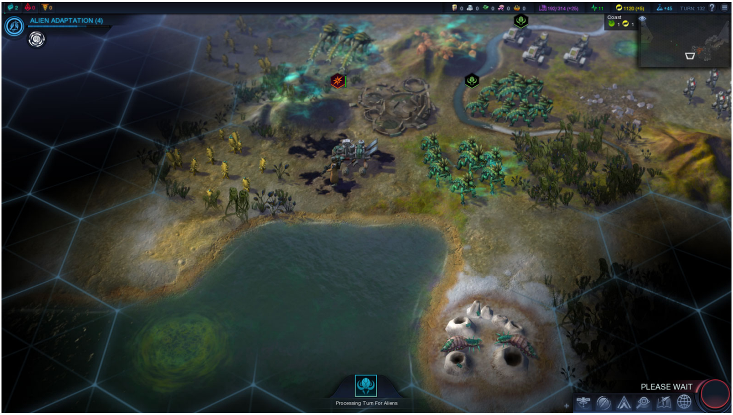

AUGMENTATION (8)
378/1260 (+78)
1795 (+10)
+218
TURN: 232
Xenomass
Forest, Plains, River
WARDEN
UNIT IS OUT OF MOVES
0/2
18
Ranged Attack 66
VETERANCY GAINED

When combined with previous perks from the Purity line, Wardens make cities incredibly difficult to take with anything less than a sizeable force.

WOLF BEETLE

- **Cost**: 20 Production
- **Movement**: 2
- **Abilities**: 8 Combat, Alien Unit

- **Prerequisite Tech**: None


ALIEN ADAPTATION (4)
TURN: 132
Coast
Processing Turn For Aliens
PLEASE WAIT

These aggressive alien units are the bane of early exploration. Though weak individually, you often find them in large groups around alien nests.

▣ XENO CAVALRY

- **Cost**: 210 Production
- **Movement**: 3
- **Abilities**: 48 Combat
- **Prerequisite Tech**: Alien Domestication

FINISHED: SERVOMACHINERY
TURN: 405
Generator (Pillaged!)
Grassland

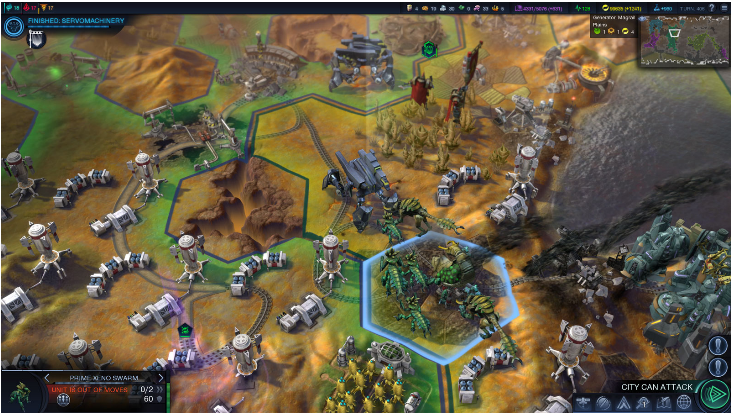
You have plundered 7 from the Generator!

CITY CAN ATTACK

A unique Harmony unit, Xeno Cavalry require Xenomass for construction. Use Xeno Cavalry to move quickly, raid, and hit exposed targets.

XENO SWARM

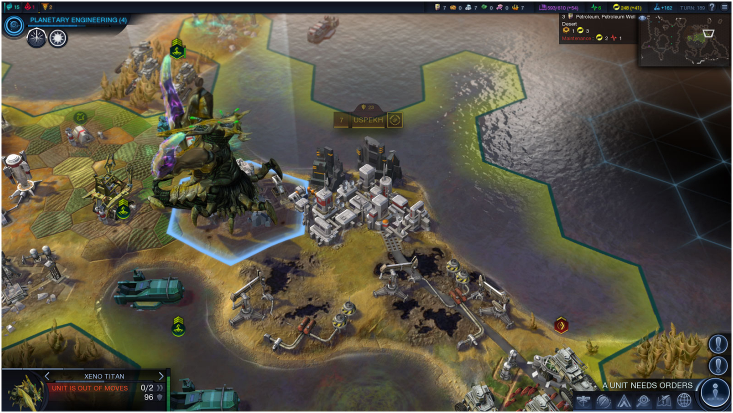
- **Cost**: 120 Production
- **Movement**: 2
- **Abilities**: 34 Combat
- **Prerequisite Tech**: Alien Adaptation


FINISHED: SERVOMACHINERY
Generator, Magrail
Plains
TURN: 406
PRIME XENO SWARM
UNIT IS OUT OF MOVES
0/2
60
CITY CAN ATTACK

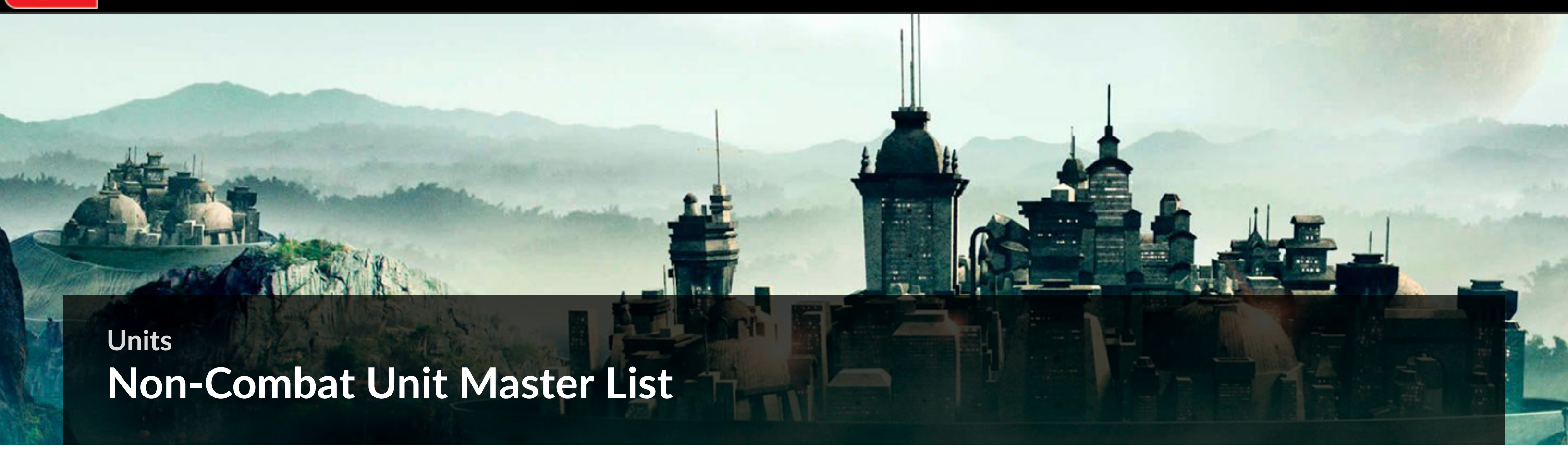
Xeno Swarms are unique Harmony units that require Xenomass to construct. Xeno Swarms act like standard melee troops at first, but they upgrade into much more destructive and complex units in the later game.

XENO TITAN

- **Cost**: 400 Production
- **Movement**: 2
- **Abilities**: 96 Combat
- **Prerequisite Tech**: Alien Evolution


PLANETARY ENGINEERING (4)
TURN: 189
Petroleum, Petroleum Well
Desert
Maintenance
USPEKH
XENO TITAN
UNIT IS OUT OF MOVES
0/2
96
A UNIT NEEDS ORDERS

Xeno Titans are ultimate Harmony units that require Xenomass to construct. With incredibly high base stats, these creatures rip through targets with strong direct attacks. Form your lines around them, and advance slowly with your ranged units in the back. Not much is going to get through a Xeno Titan (at least, not quickly).



Non-Combat Unit Master List

COLONIST

- **Cost**: 80 Production
- **Movement**: 2
- **Abilities**: Outpost construction
- **Prerequisite Tech**: Pioneering

Colonists found outposts that grow over time. Protect them at all costs when on the move. It's best to have an infantry unit of some workers stay in their tile and move to the same location each turn. That way, you won't get ambushed and killed by anything that's hiding nearby.

WORKER

- **Cost**: 60 Production
- **Movement**: 2
- **Abilities**: Improves tiles
- **Prerequisite Tech**: Habitation

FINISHED: SERVOMACHINERY
TRADE VESSEL
VETERANCY GAINED

Workers create improvements on tiles. Your cities and nation won't thrive quickly without them. Like colonists, they must be protected by military units. If aliens or potentially hostile units approach your area, place a military unit on the same tile as your threatened worker.

TRADE CONVOY

- **Cost**: 60 Production
- **Movement**: 2
- **Abilities**: Creates a trade route
- **Prerequisite Tech**: Pioneering

FINISHED: SERVOMACHINERY
A UNIT NEEDS ORDERS

Establish land trade routes with nearby stations, outposts, and cities. These units get you huge amounts of gold, Science, Production, Food, Culture, or even military units. It's hard to be the best without using trade convoys as often as possible.

TRADE VESSEL

- **Cost**: 70 Production
- **Movement**: 3
- **Abilities**: Creates a trade route over water
- **Prerequisite Tech**: Pioneering

FINISHED: SERVOMACHINERY
PRIME NENO SWARM
A UNIT NEEDS ORDERS

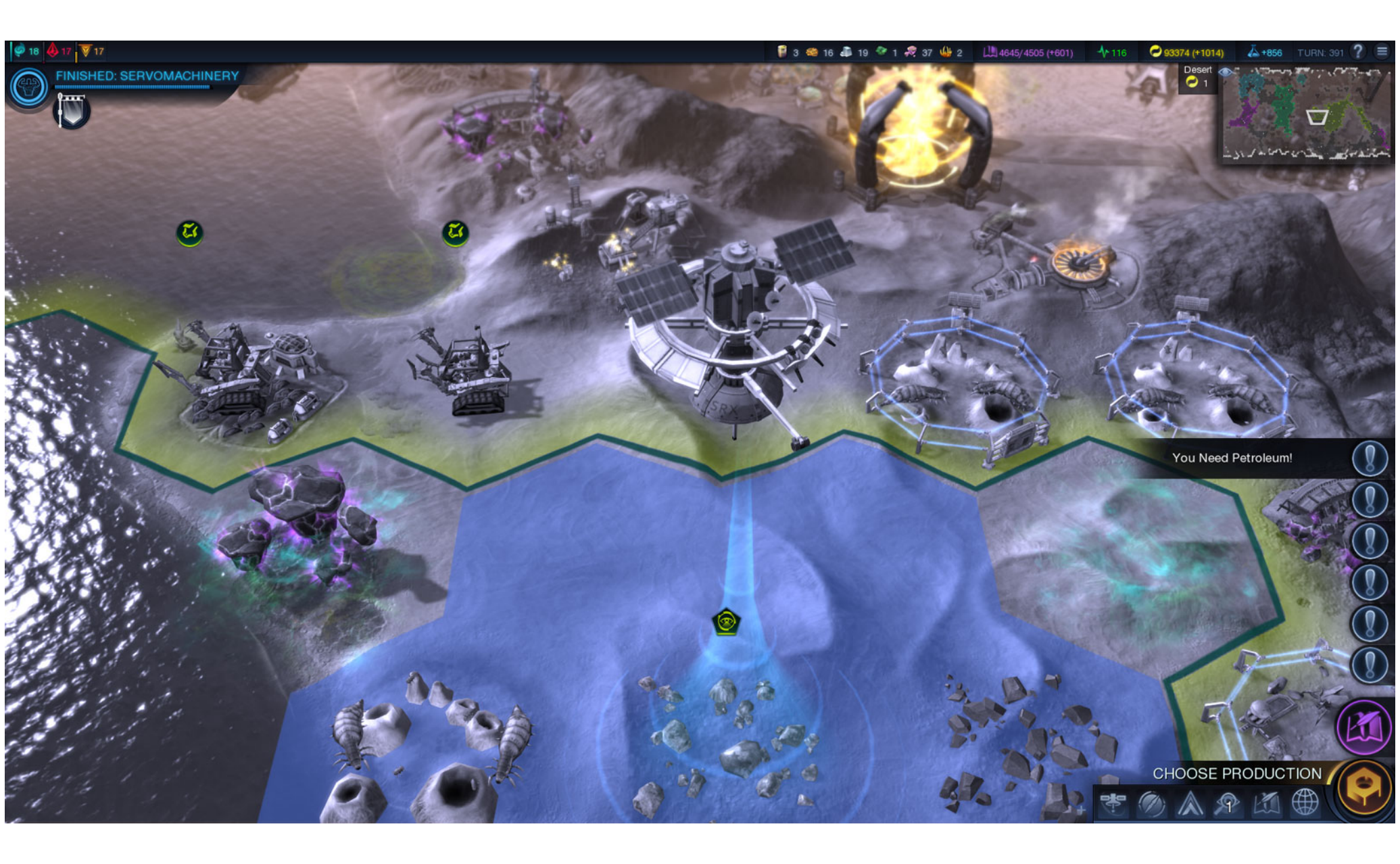
Naval trade routes have similar functions to their land rivals, but you get more resources out of them. That said, the seas are a dangerous place. You end up losing trade vessels to aliens more often because there is no perfect way to protect them.

Units

Orbital Unit Master List

▣ ALL-SEER

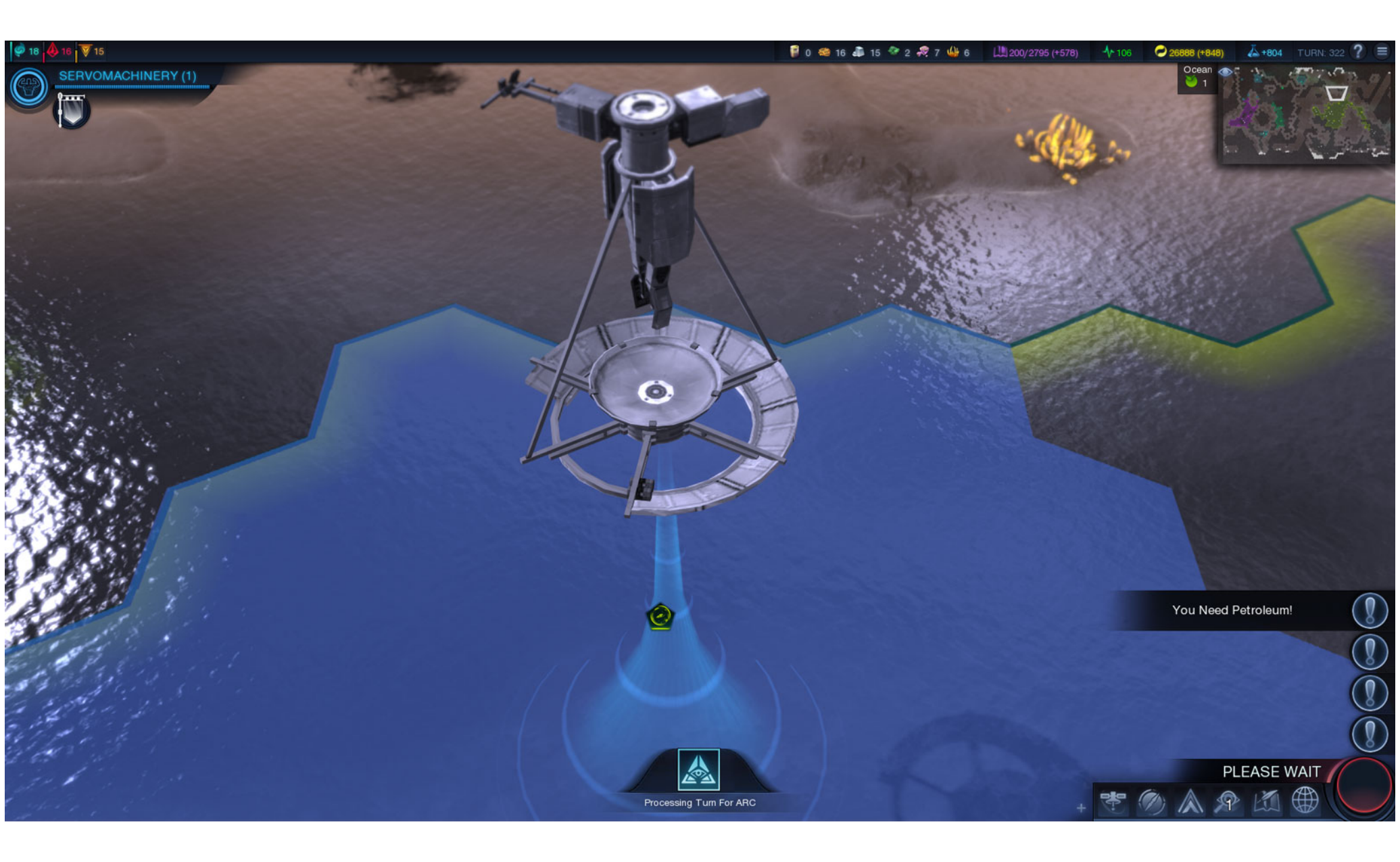
- **Cost**: 140 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, removes covert agents and Intrigue.
- **Prerequisite Tech**: Dark Networks


FINISHED: SERVOMACHINERY
You Need Petroleum!
CHOOSE PRODUCTION

The All-Seer protects any cities in range from covert operations. It requires Petroleum and Titanium to construct.

▣ DEEP SPACE TELESCOPE

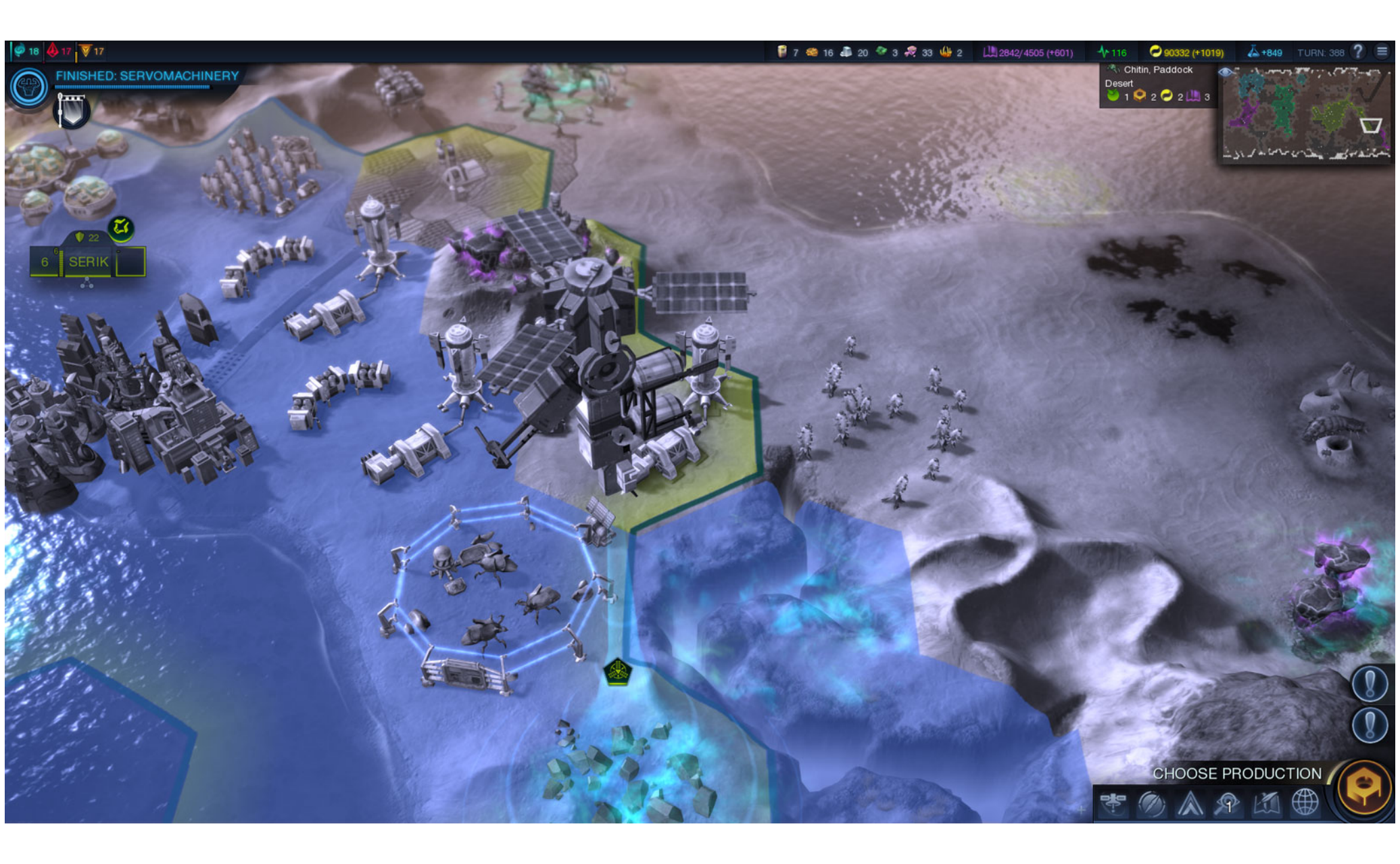
- **Cost**: 140 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, +25% Science to any city in Range. Contributes to the Contact victory.
- **Prerequisite Tech**: Orbital Automation


SERVOMACHINERY (1)
You Need Petroleum!
PLEASE WAIT
Processing Turn For ARC

The Deep Space Telescope aids in the discovery of "The Signal," a crucial component of the Contact victory type. It also gives a large bonus to overall Science for cities in coverage Range.

▣ HOLOMATRIX

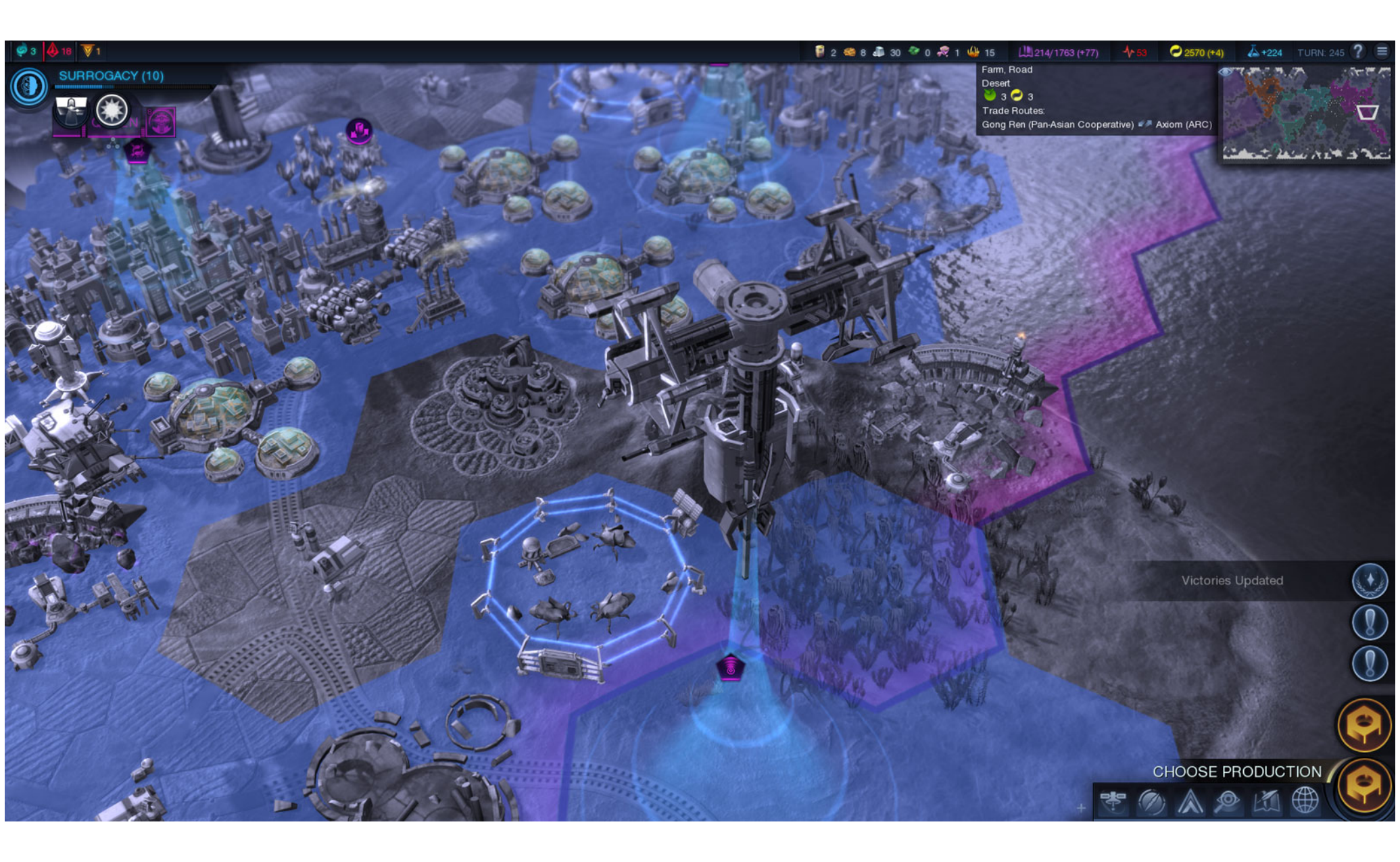
- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, +2 Culture on tiles in coverage.
- **Prerequisite Tech**: Civil Support


FINISHED: SERVOMACHINERY
SERIK
CHOOSE PRODUCTION

The Holomatrix increases Culture in nearby tiles and reduces Intrigue caused by covert operations by 50% while it's in the area. It requires Petroleum and Floatstone to construct.

▣ LASERCOM SATELLITE

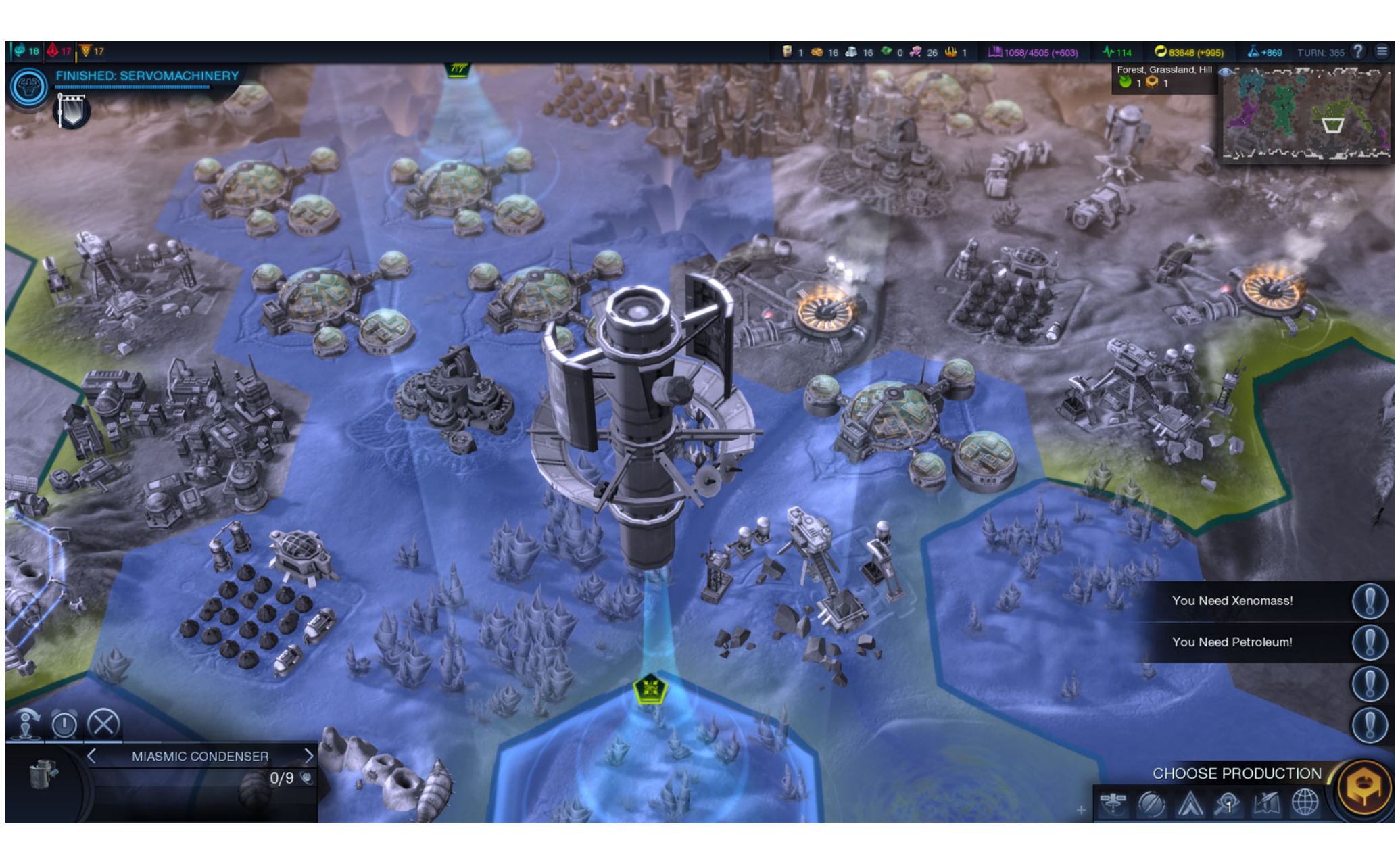
- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit
- **Prerequisite Tech**: Orbital Networks


SURROGACY (10)
Victories Updated
CHOOSE PRODUCTION

The Lasercom Satellite contributes to the Emancipation and Promised Land victories and increases Science in covered cities by 15%. It requires Petroleum and Titanium to construct.

▣ MIASMIC CONDENSER

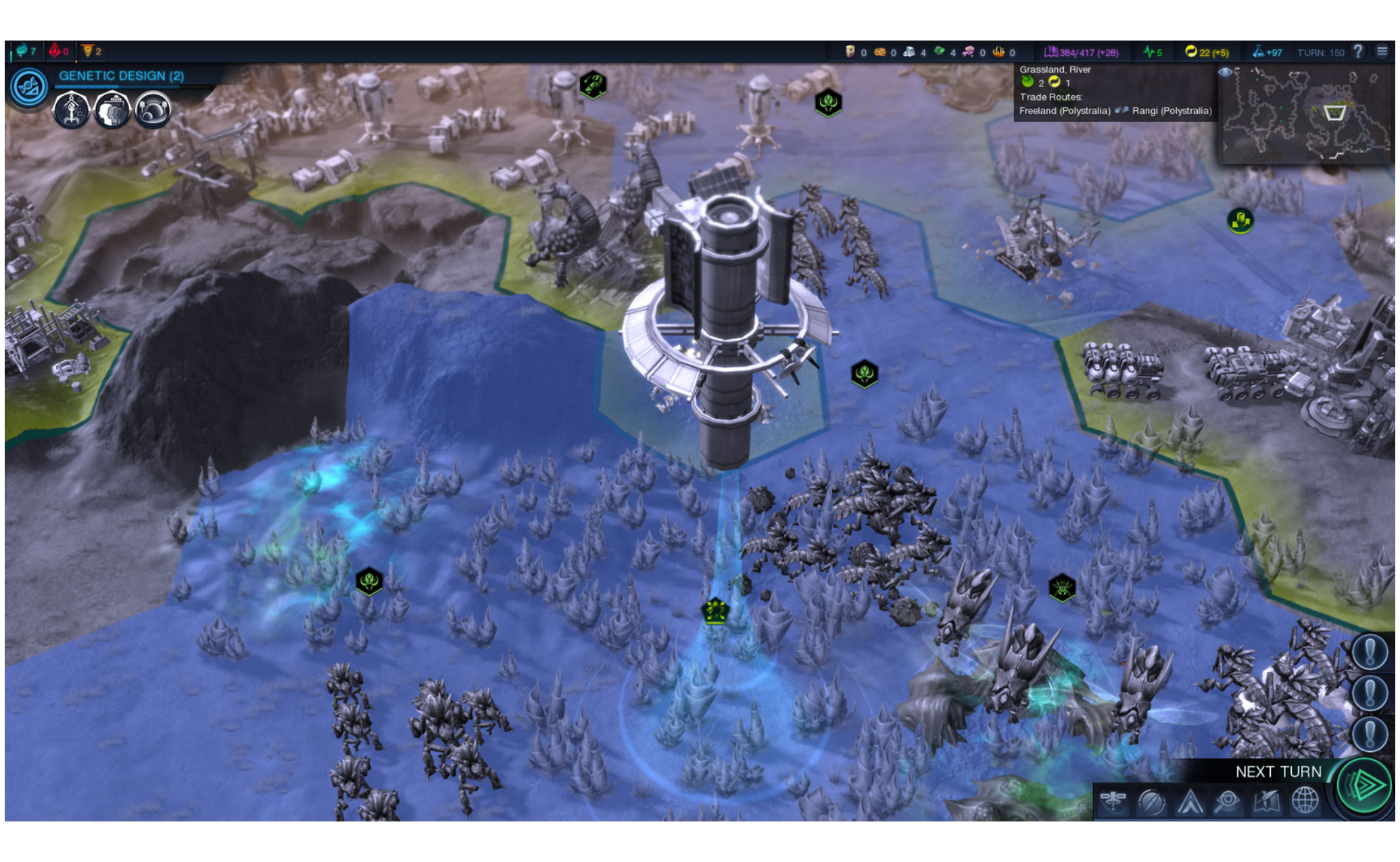
- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, generates miasma
- **Prerequisite Tech**: Alien Ecology


FINISHED: SERVOMACHINERY
You Need Xenomass!
You Need Petroleum!
MIASMIC CONDENSER
0/9
CHOOSE PRODUCTION

The Miasmic Condenser generates miasma in the covered area. This is primarily useful for Harmony troops that benefit from being in miasma. It requires Petroleum and Xenomass.

▣ MIASMIC REPULSOR

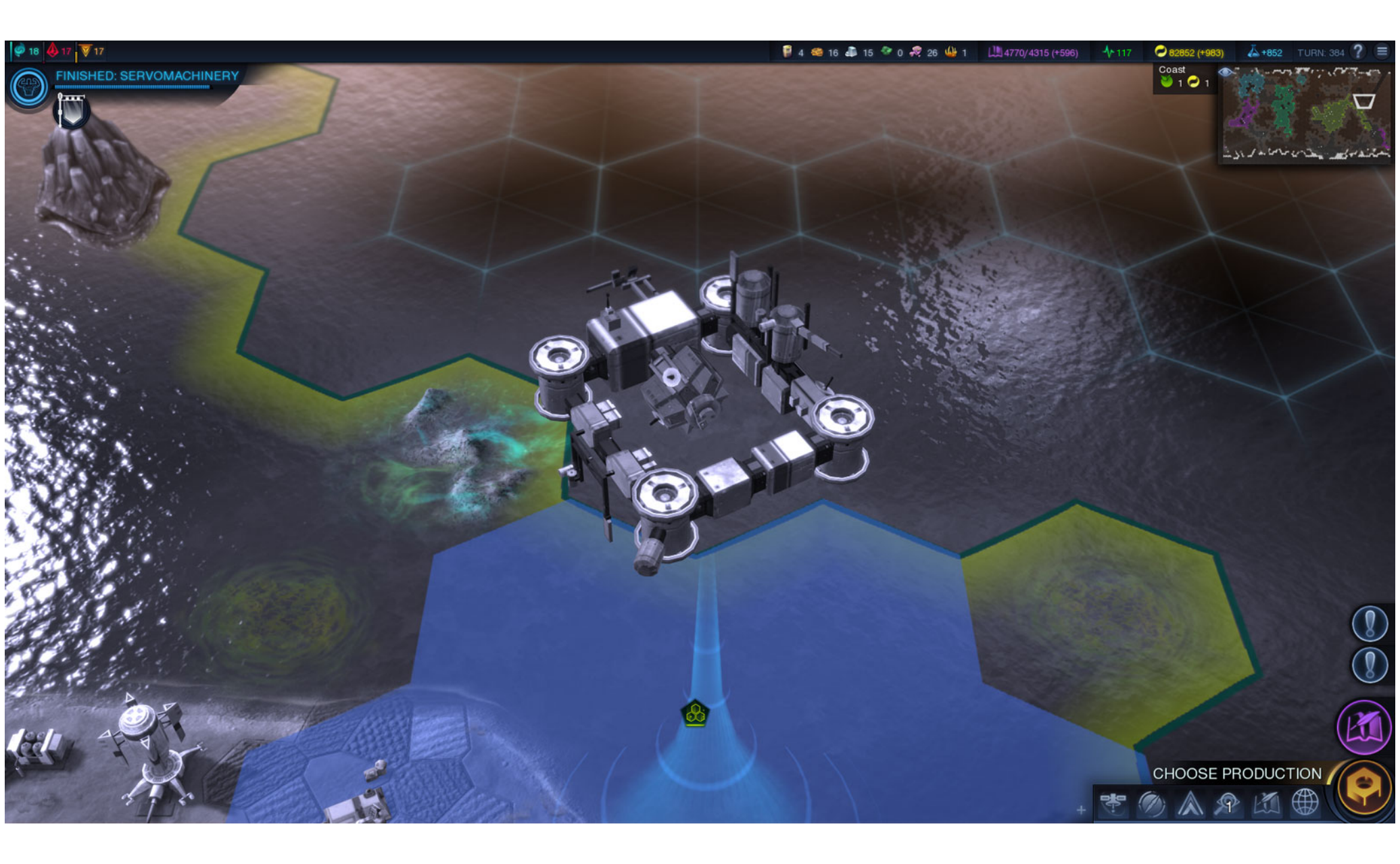
- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, clears miasma
- **Prerequisite Tech**: Ecology


GENETIC DESIGN (2)
NEXT TURN

The Miasmic Repulsor clears miasma from tiles in the covered area. Make your trade routes more efficient by clearing the way for them to pass, or reduce the danger for moving through areas with heavy miasma.

▣ ORBITAL FABRICATOR

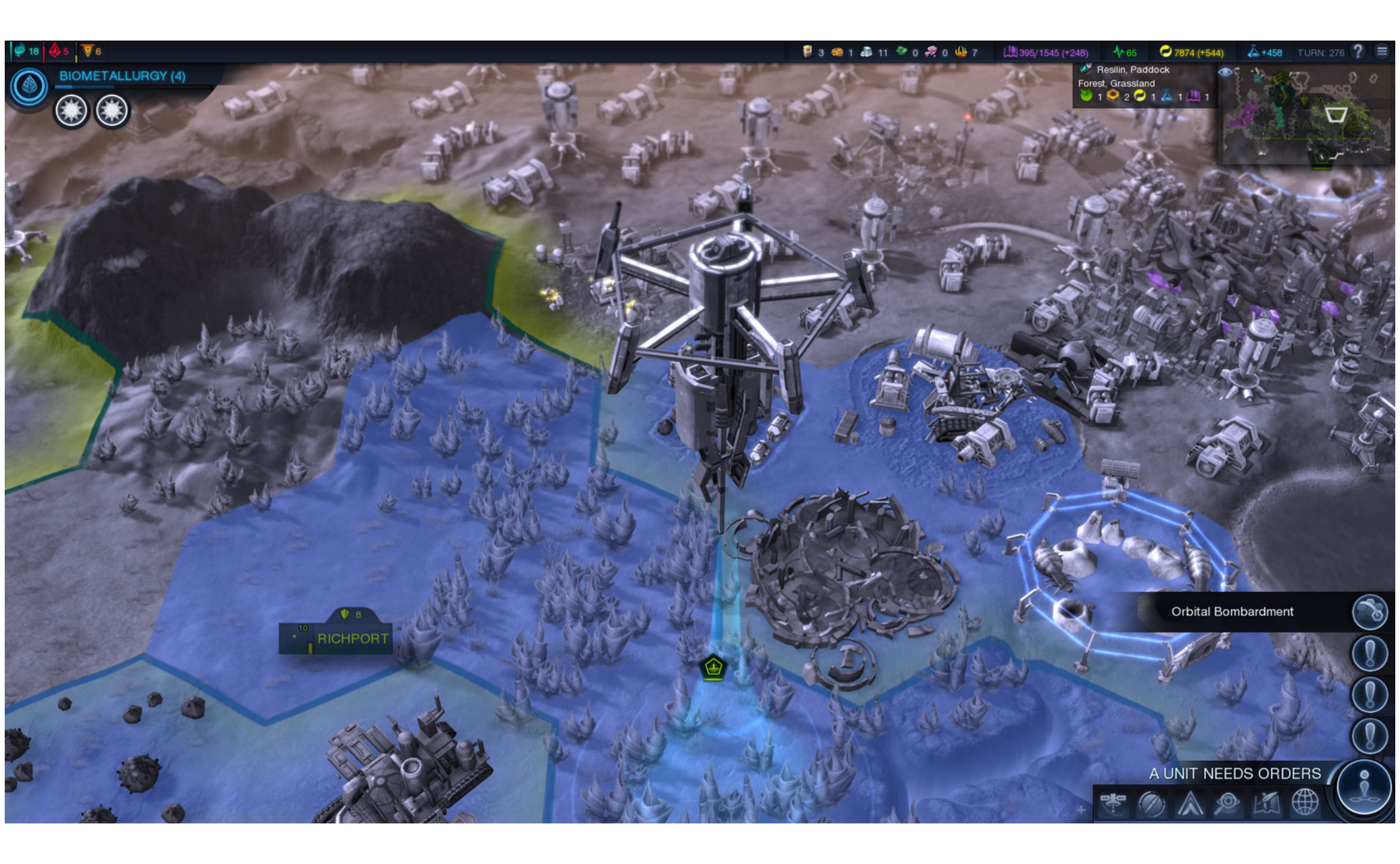
- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases Production
- **Prerequisite Tech**: Geoscaping


FINISHED: SERVOMACHINERY
CHOOSE PRODUCTION

The Orbital Fabricator increases Production on covered tiles by 1 and generates strategic resources on unimproved tiles by the end of the device's orbit. It requires Petroleum and Titanium to construct.

▣ ORBITAL LASER

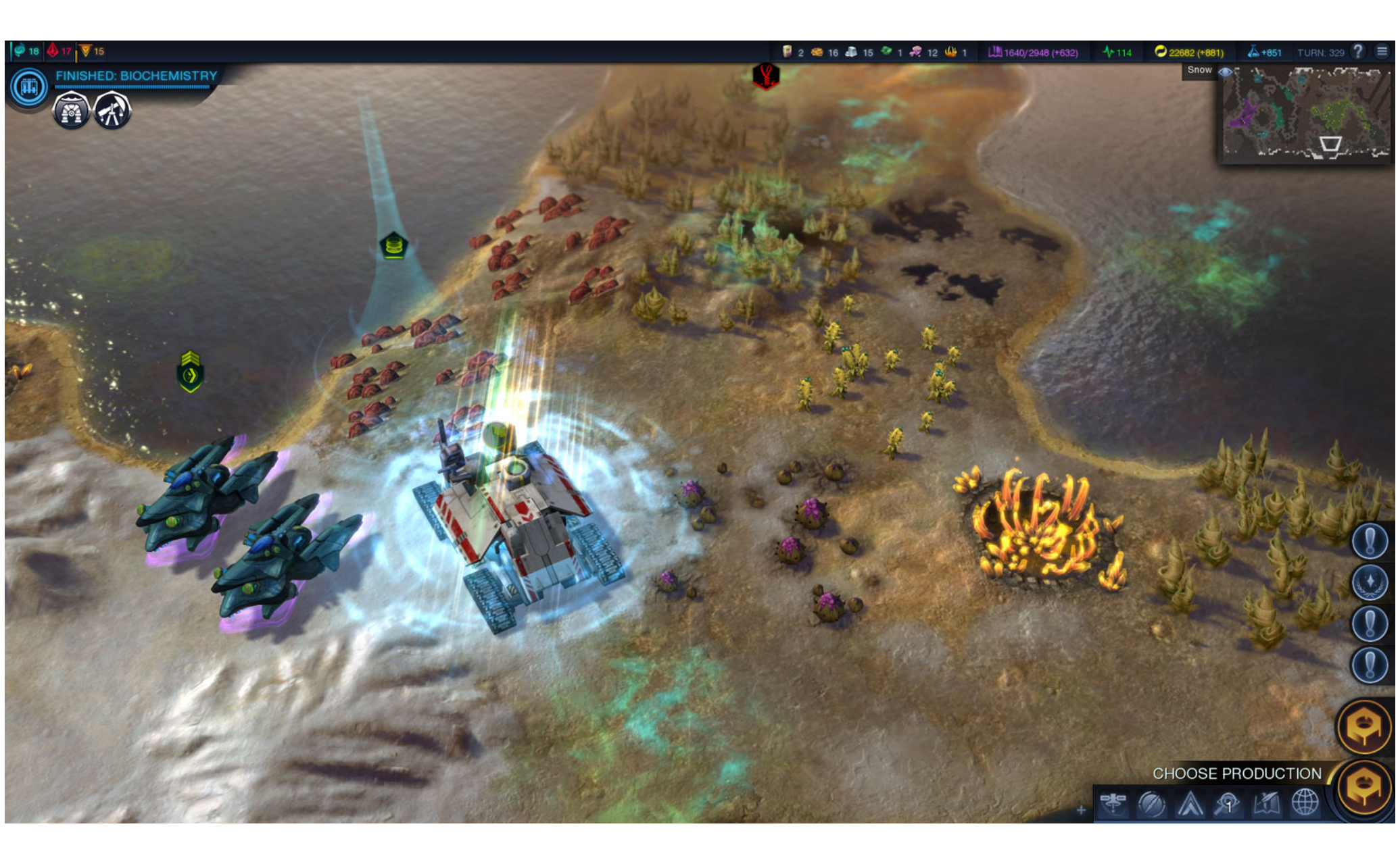
- **Cost**: 90 Production
- **Movement**: N/A
- **Range**: 2
- **Abilities**: Orbital unit, 50 Ranged Combat
- **Prerequisite Tech**: Cybernetics


BIOMETALLURGY (4)
RICHPORT
Orbital Bombardment
A UNIT NEEDS ORDERS

The Orbital Laser calls down fire from on high to obliterate your enemies. It requires Petroleum to construct. Use this defensively or offensively if you have enough Orbital Coverage to place the satellite near enemy territory.

▣ PHASAL TRANSPORTER

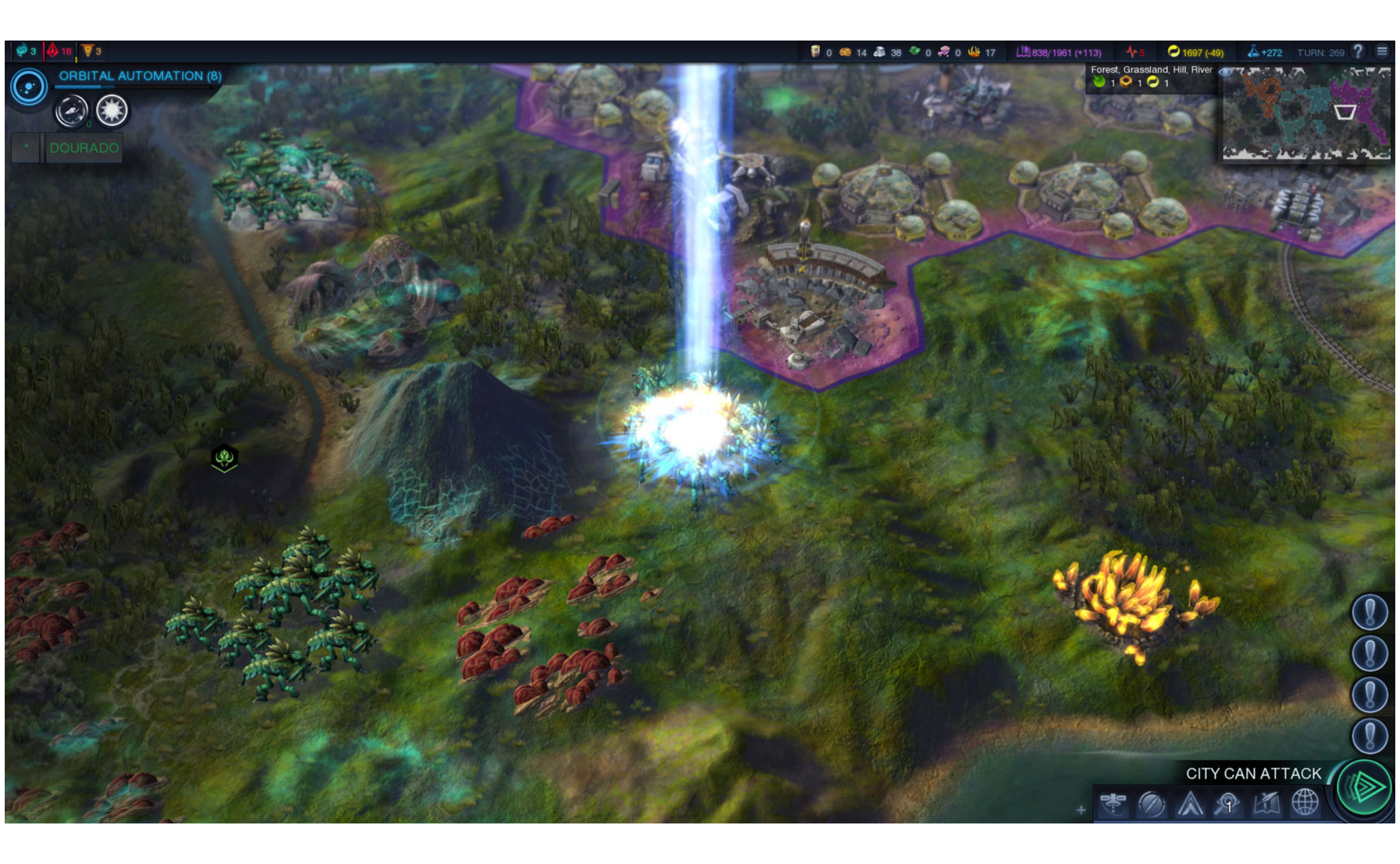
- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, allows unit teleportation
- **Prerequisite Tech**: Cybernetics


FINISHED: BIOCHEMISTRY
CHOOSE PRODUCTION

The Phasal Transporter allows for unit teleportation from any friendly city to a covered tile. This is a one-way trip. It requires Petroleum and Titanium to construct. Use these as a fast way to prepare major invasions (rather than having your entire army move across the world turn after turn).

▣ PLANET CARVER

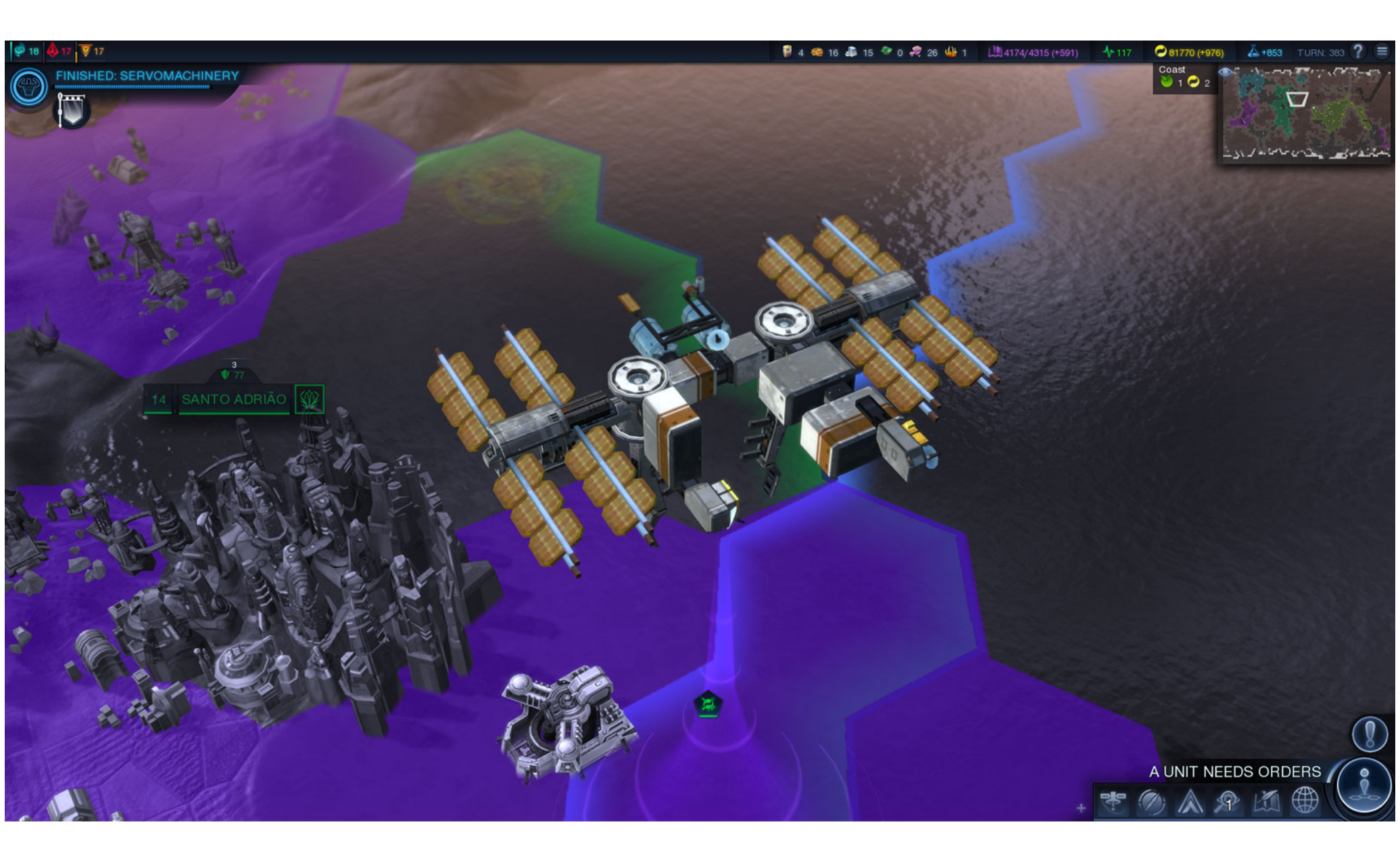
- **Cost**: 140 Production
- **Movement**: N/A
- **Range**: 2
- **Abilities**: Orbital unit, 120 Ranged Combat
- **Prerequisite Tech**: Astrodynamics


ORBITAL AUTOMATION (6)
DOURADO
CITY CAN ATTACK

This is an Orbital Laser that spells doom for enemies in the covered area. It requires Petroleum and Titanium to construct.

▣ SOLAR COLLECTOR

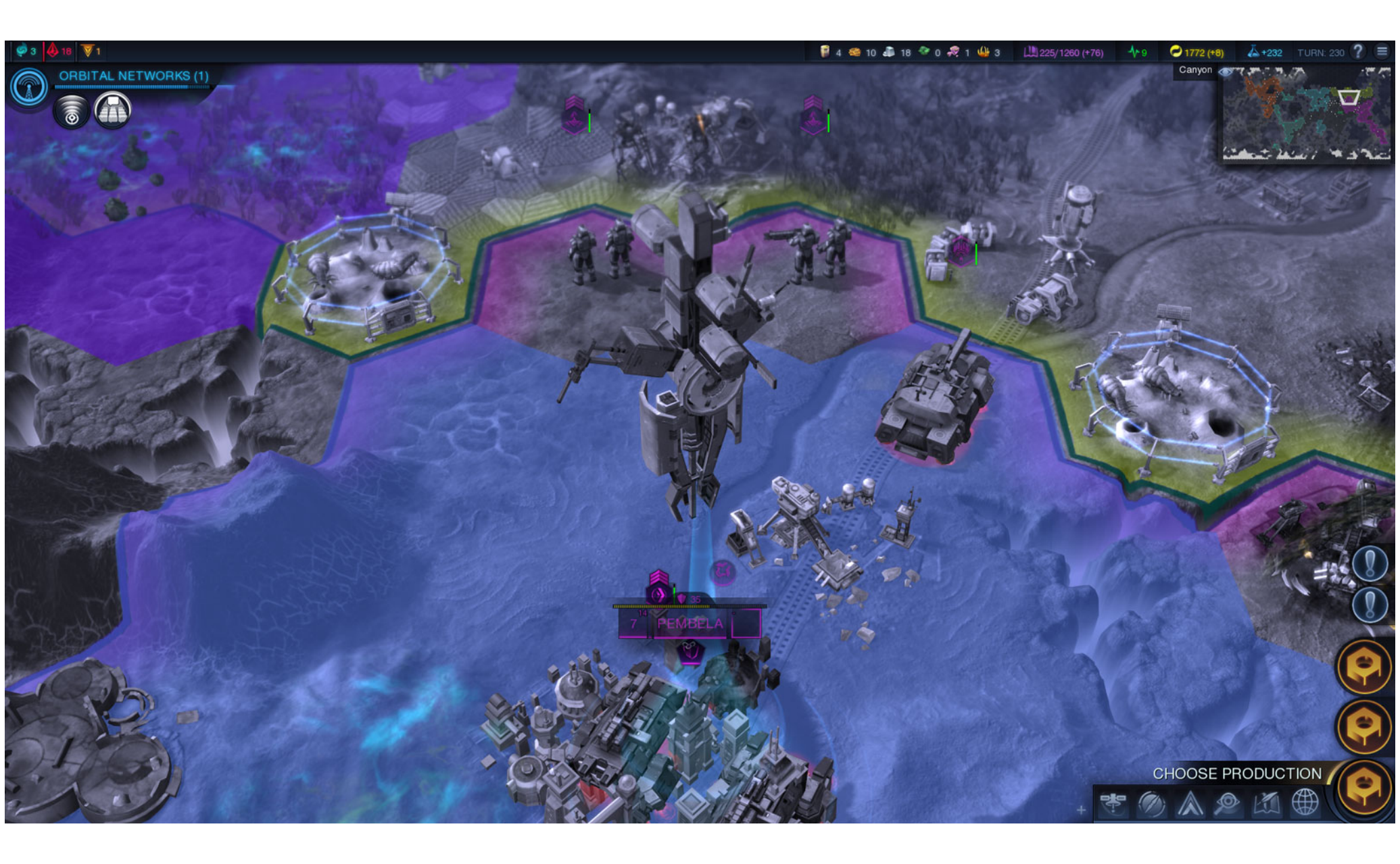
- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases tile Energy
- **Prerequisite Tech**: Photosystems


FINISHED: SERVOMACHINERY
SANTO ADRIÃO
A UNIT NEEDS ORDERS

The Solar Collector increases covered tiles' Energy by 1 and increases Energy Production in covered cites by 20%.

▣ TACNET HUB

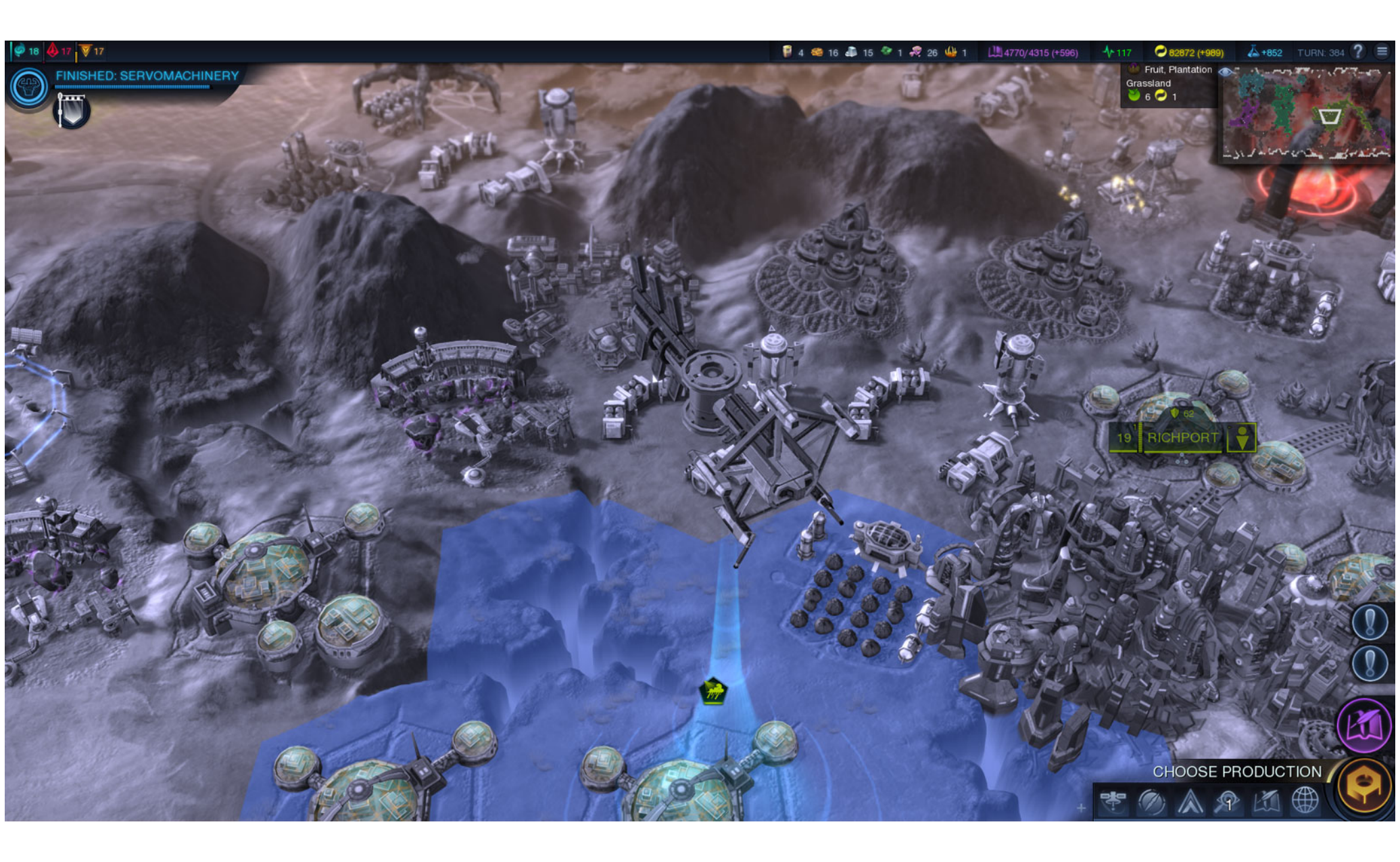
- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit
- **Prerequisite Tech**: Communications


ORBITAL NETWORKS (1)
PEMBELA
CHOOSE PRODUCTION

The Tacnet Hub provides friendly units in covered area with +20% Combat Strength and improves their Healing by 5 HP per turn.

▣ WEATHER CONTROLLER

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases Food Production
- **Prerequisite Tech**: Climate Control


FINISHED: SERVOMACHINERY
RICHPORT
CHOOSE PRODUCTION

The Weather Controller is an orbital satellite that increases Food Production on covered tiles and generates basic resources on unimproved tiles by the end of its orbit. It requires Petroleum and Titanium to construct.

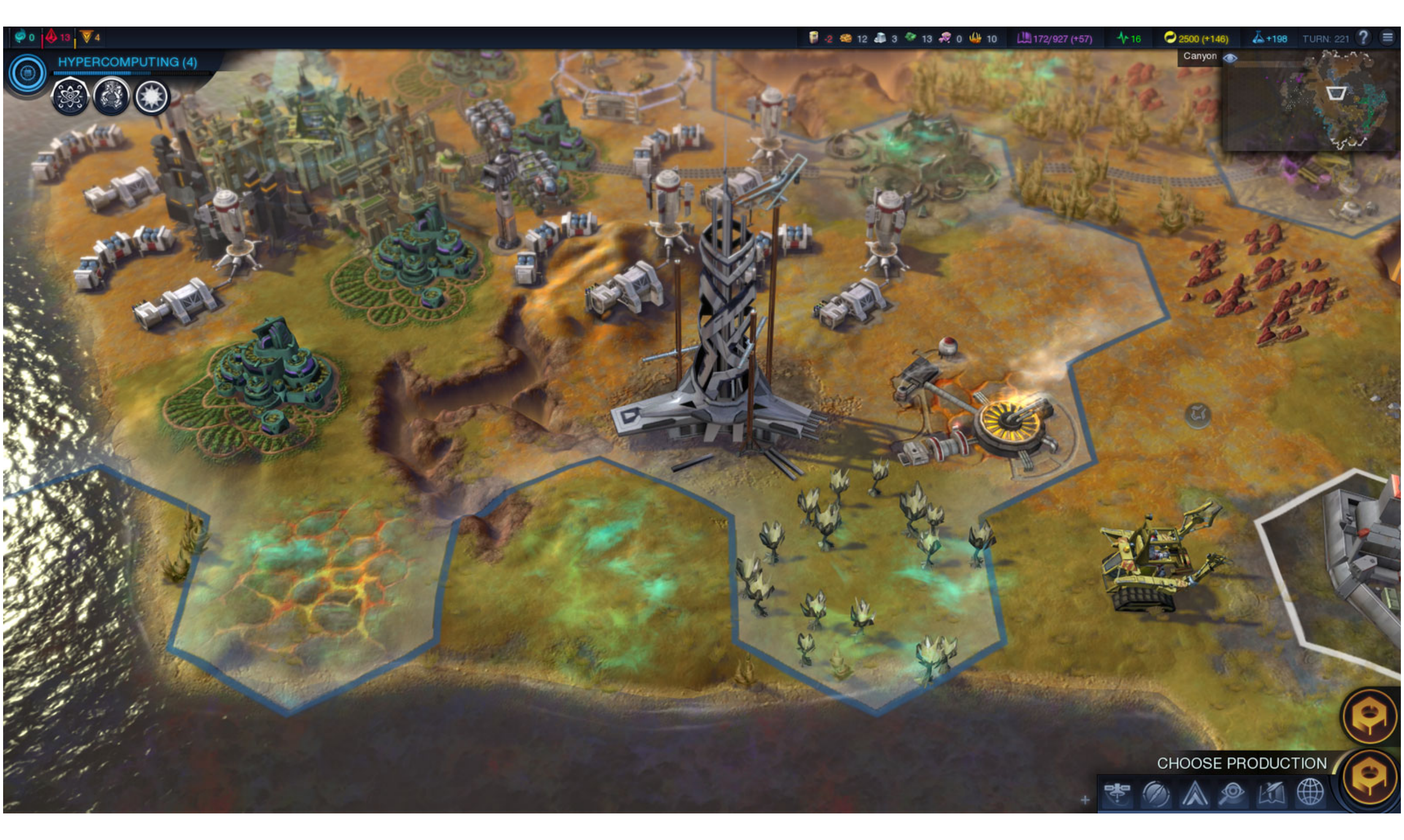
Buildings

Overview

CONSTRUCTING BUILDINGS

Cities will not get very far without a wide assortment of Buildings to upgrade resources, yields, and general conditions. There are several ways this can be accomplished. The easiest way is to open the City Manager (by clicking on a city's name), use the Choose Production menu, and select a building to produce. The city's Production is then devoted toward creating that Building, with the amount of Production accumulating each turn until the Building is done.

Alternately, when a city finishes a construction project, a Production icon pops up on the lower-right side of the screen in the User Interface of the World View. Clicking on this icon immediately opens the Choose Production menu for that city, so another Building can be selected for construction.



With some planning for a city's usage and intended purpose, a queue can be generated to produce multiple Buildings, Units, or combinations of Buildings and Units. Open the City Manager by clicking on the city's name, and then click in the Activate box located on the Production Queue Action Bar to make the check mark appear. This will activate a queue at the bottom of the screen.

Next, choose a Building or Unit to be produced first for the city. The second Building or Unit chosen will be the next item to be produced for the city when the first Building/Unit chosen has been completed. Notice that the Choose Production menu will now read Add To Queue. Each additional Building or Unit chosen will add to the list in the same fashion, being constructed or trained in the order selected. This allows a queue to be created that will allow any combination of available Buildings and Units.

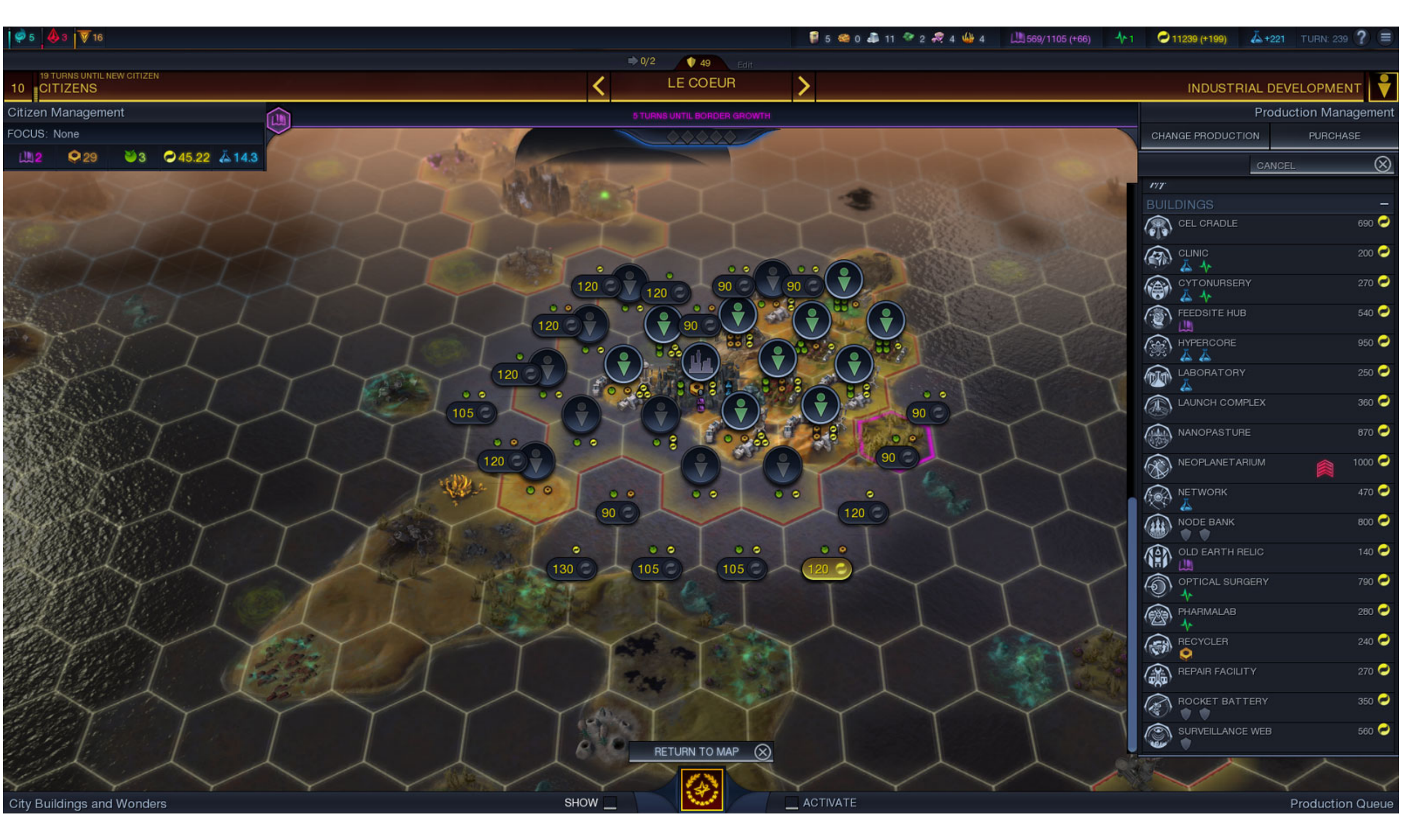
Buildings and Units can also be constructed when purchased. This requires a fair amount of stockpiled Energy, so purchasing Buildings is not always feasible. To Purchase a Building or unit, open the City Manager by clicking on the city's name in the World View. The Production Management menu, located in the upper right corner in the City Manager user interface, contains two tabs: Change Production and Purchase. By clicking on the Purchase tab, the Buildings and Units that can be purchased will appear on the list.

Some of the items may be unavailable, appearing grayed out which means more Energy, Affinity, Resources, and/or other requirements have not been met before the Building or Unit can be purchased. Scan the list of available items, choose a Building to purchase, and click on it. Once a Building or Unit has been selected for Purchase, the proper amounts of Energy and Resources, if applicable, are subtracted from the Global Totals, located at the top of the World View.

To view the Building that was purchased, open the City Manager by clicking on the city's name in the World View, and then click in the Show box located on the City Buildings and Wonders Action Bar in the lower left corner of the City Manager to make the check mark appear. This will show all the Buildings and Wonders for the city. Scroll through the list until the Building that was purchased it seen. All Buildings will appear here whether purchased, produced, or gifted.

Purchasing Buildings grants their associated bonuses instantly. This is often best when starting a new city because it takes many turns of construction; cities with high Production usually finish Buildings so quickly that it is not as efficient to use stored Energy in this manner.

Some buildings can be acquired automatically. Some Wonders can "gift" a Building to the city in which the Wonder is built. This is covered in the Next Chapter, but the important piece to remember is that some Buildings can be acquired for free. Do not Produce or Purchase a Building that can cost valuable Turns, Energy, and Production if that Building is not absolutely necessary!



CEL CRADLE	690
CLINIC	200
CYTONURSERY	270
FEEDSITE HUB	540
HYPERCORE	950
LABORATORY	250
LAUNCH COMPLEX	360
NANOPASTURE	870
NEOPLANETARIUM	1000
NETWORK	470
NODE BANK	800
OLD EARTH RELIC	140
OPTICAL SURGERY	790
PHARMALAB	280
RECYCLER	240
REPAIR FACILITY	270
ROCKET BATTERY	350
SURVEILLANCE WEB	560

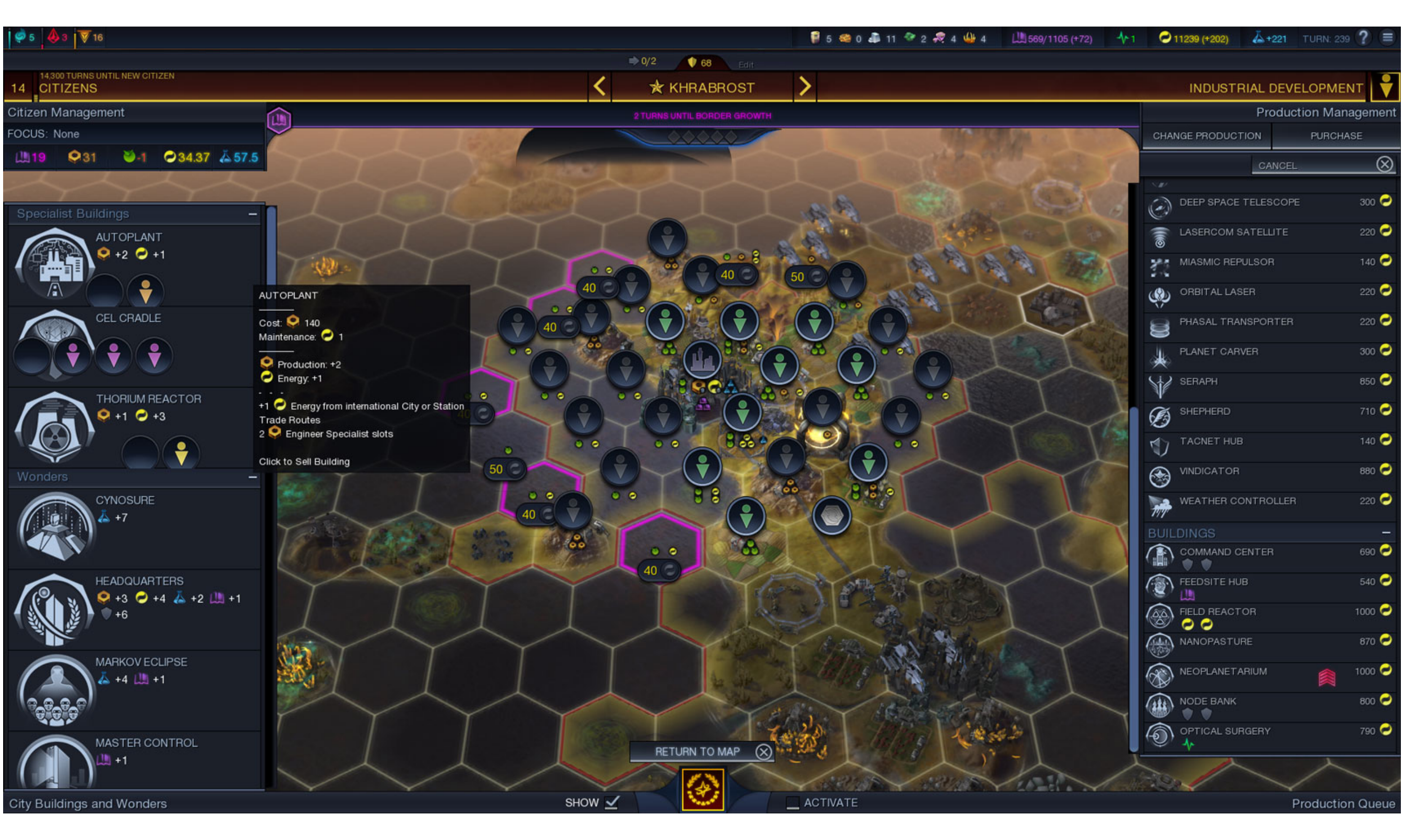
ASSIGNING SPECIALISTS

Open the City Manager by clicking on a city's name in the World View, and activate the City Buildings and Wonders option at the bottom of the screen by clicking in the Show box, making the check mark appear. This opens a panel above it that shows the Buildings and Wonders that have been built inside the city. Look over all of the Buildings, Wonders, and associated perks that city has to acquired. Notice that some of the Buildings have open circles next to them.

These open circles are actually Specialist Slots. There are several types of Specialists that are all valuable to the progress of the city. Click on the slots to fill them with Citizens so that bonuses can be gained. To view the bonuses, hover the mouse pointer over the Specialist Slots, and tool tips will appear for each slot.

It is also important to know how many Citizens there are in a city so that they can be assigned out appropriately. To see the Population information of the city, look at the upper left corner above Citizen Management in the City Manager or to the left of the City's name in the World view.

Citizens cannot be Specialists and Laborers at the same time. So, having a ton of Specialists means that there will not be as many people to work the tiles around the city. This is usually a rough trade-off in the early days of a city, when the city needs the resources from the tiles to grow. Later on when the Population is larger, usually there are Citizens that can be spared for Specialist Slots because not every single tile will have to be worked. Once Citizens are working the city's best tiles, go ahead and start assigning Citizens to Specialists Slots to focus the city on whichever resources are needed the most.



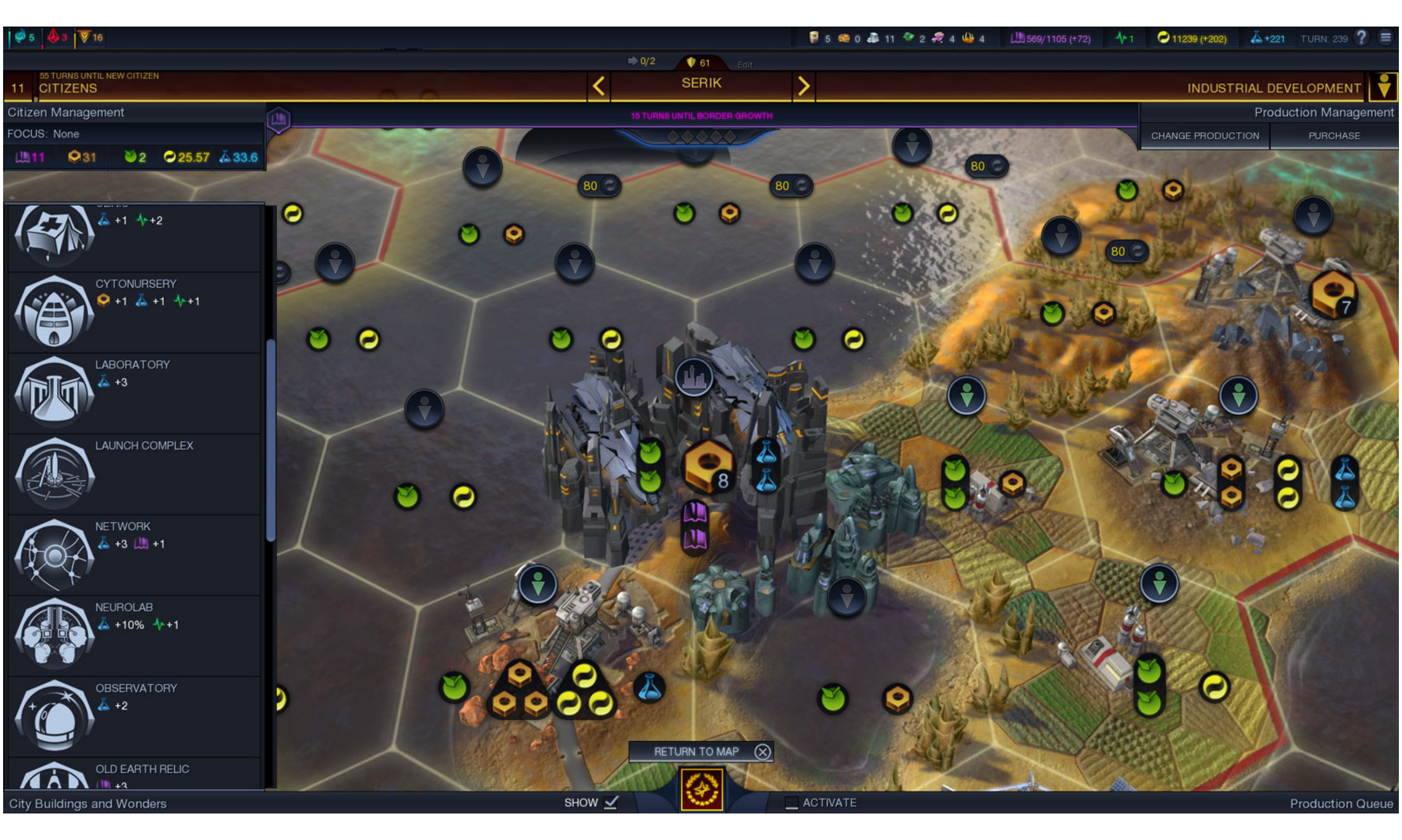
AUTOPLANT
Cost: 140
Maintenance: 1
Production: +2
Energy: +1
+1 Energy from international City or Station Trade Routes
2 Engineer Specialist slots
Click to Sell Building

Types Of Specialists

- **Artists**: Raise the Culture output of a city.
- **Engineers**: Improve the city's Production.
- **Growers**: Add Food to your city.
- **Scientists**: Increase Science yields.
- **Traders**: Bring in those Energy credits!
- **Unemployed**: Citizens who are not working a tile or a Specialist Slot are unemployed, only providing a single point of Production.

CITY/BUILDING SPECIALIZATION

City development is a combination of time, Tile Resource management, Population management, and Building construction. Use every turn wisely, and create a city that fills whatever niche the Colony needs. There is not a "one size fits all" solution. Without question, build orders have an important place; as Polystralia, it might be more beneficial to start off with buildings like a Trade Depot and a Recycler building, followed by an Ultrasonic Fence building for the Quest perk(s) before moving on to other buildings, depending on the circumstances. Having a single list of buildings to construct in each city is dangerous! This is a potential blunder because there is not any specializing of cities and because circumstances and need are constantly changing.



In earlier *Civilization* games, generic build orders could be a real problem. People who used them did not realize the tremendous advantages that can be gained by stacking buildings with similar bonuses on top of each other. It was possible to create a military focused city that popped out units with multiple upgrades. Then, another city could be focused on massive scientific bonuses, utilizing Wonders with Science buffs to compound high Science yields. Generic cities with the same buildings could not reach equivalent power as quickly.

In *Civilization: Beyond Earth*, there are not as many buildings that help to specialize, but this style of play is still relevant. Create a city with stronger defenses along the Colony's border. Make sure that it has bonuses that increase City Hit Points and City Strength. Use safer interior cities to focus more on producing units and orbitals as well as to increase yields and general resources.

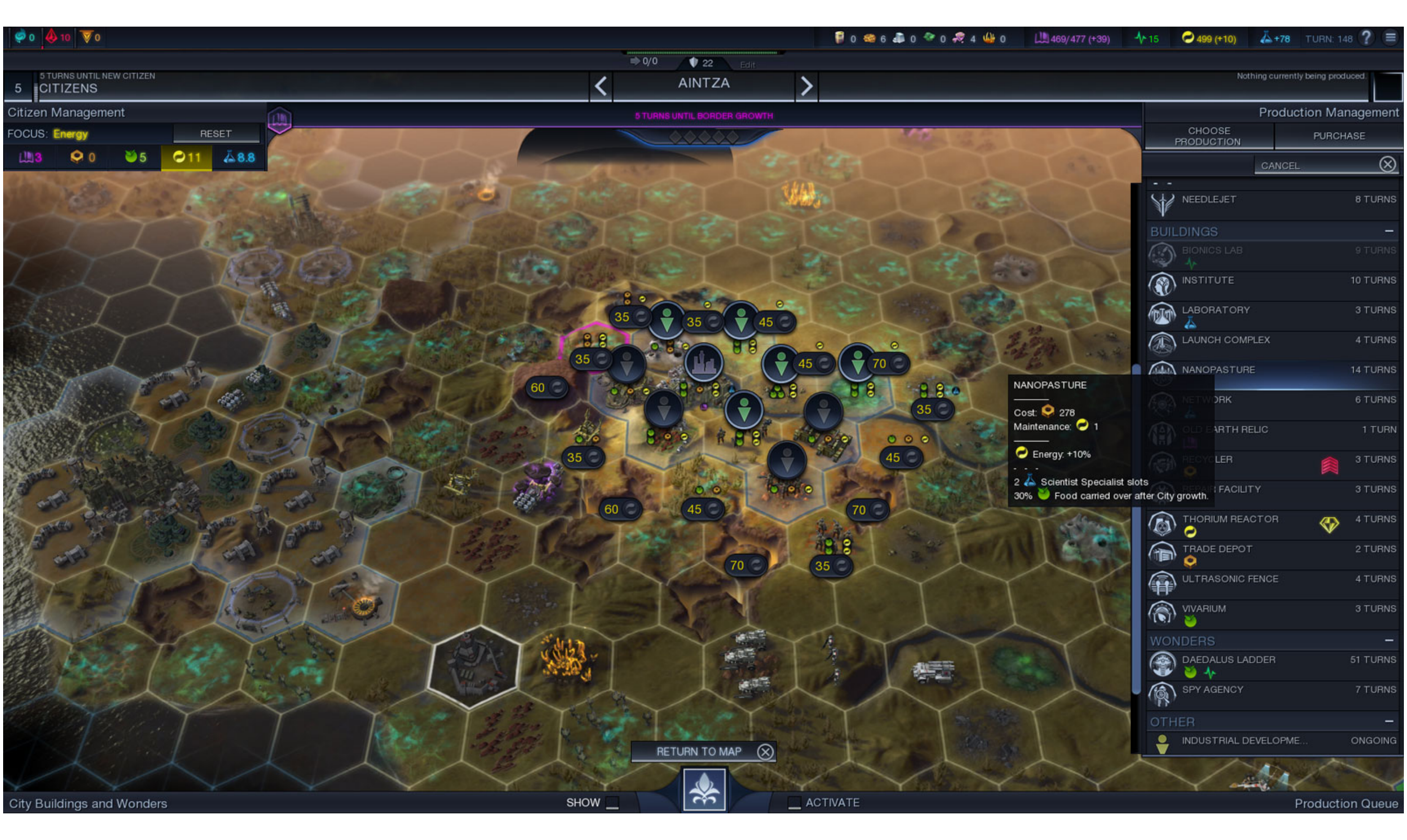
FINISHED: COMMUNICATIONS
SERIK
JIMBOOMBA
DRAGOON
A UNIT NEEDS ORDERS

Avoid wasting time creating massive defenses in safe areas until there is nothing better to do (which doesn't happen often). Instead, take the slight risk in leaving those cities weaker, investing in Science, Production, and other yields that are going to help the Colony grow.

TIERS OF BUILDINGS

This discussion is more of a conceptual one because the game does not require its Buildings to be built in tiers. There is no requirement to construct a Vivarium building to get a Cloning Plant building, or a Recycler building to get a Borehole building. However, it is still necessary to learn about tiers because they are a quick way to represent the necessity of a particular Building for each city owned.

The understanding of Buildings can be improved by placing them into tiers. The construction costs for Buildings that are researched later in the Technology Web are much higher than the ones researched early on. If more advanced Buildings are queued early in a city's history, the results can be disastrous. The delay in completion is more than a missed opportunity for the city and Colony. Even if the advanced Building has better stats than a "lower tier" Building of the same resource type, many turns are still wasted that the weaker Building could be turning out increased yields for while the advanced Building is still waiting for completion.



NANOPASTURE
Cost: 278
Maintenance: 1
Energy: +10%
2 Scientist Specialist slots
30% Food carried over after City growth.

In discussing Buildings and their values, Buildings can essentially be broken down into tiers. Within these tiers, produce Buildings with regards to cost, yield increase(s), and prohibitors as circumstances dictate. For example, it may be more beneficial to give precedence to constructing a Building that increases Health over constructing a Building that increases Energy among Buildings within the same tier.

First-tier Buildings are the inexpensive ones that are usually gained in the first ring of Technology. These take little time to complete, still have very solid bonuses, and do not require much from a city in terms of access to Strategic Resources. First-tier Buildings are so efficient that every type of these Buildings should be built in every city that is founded.

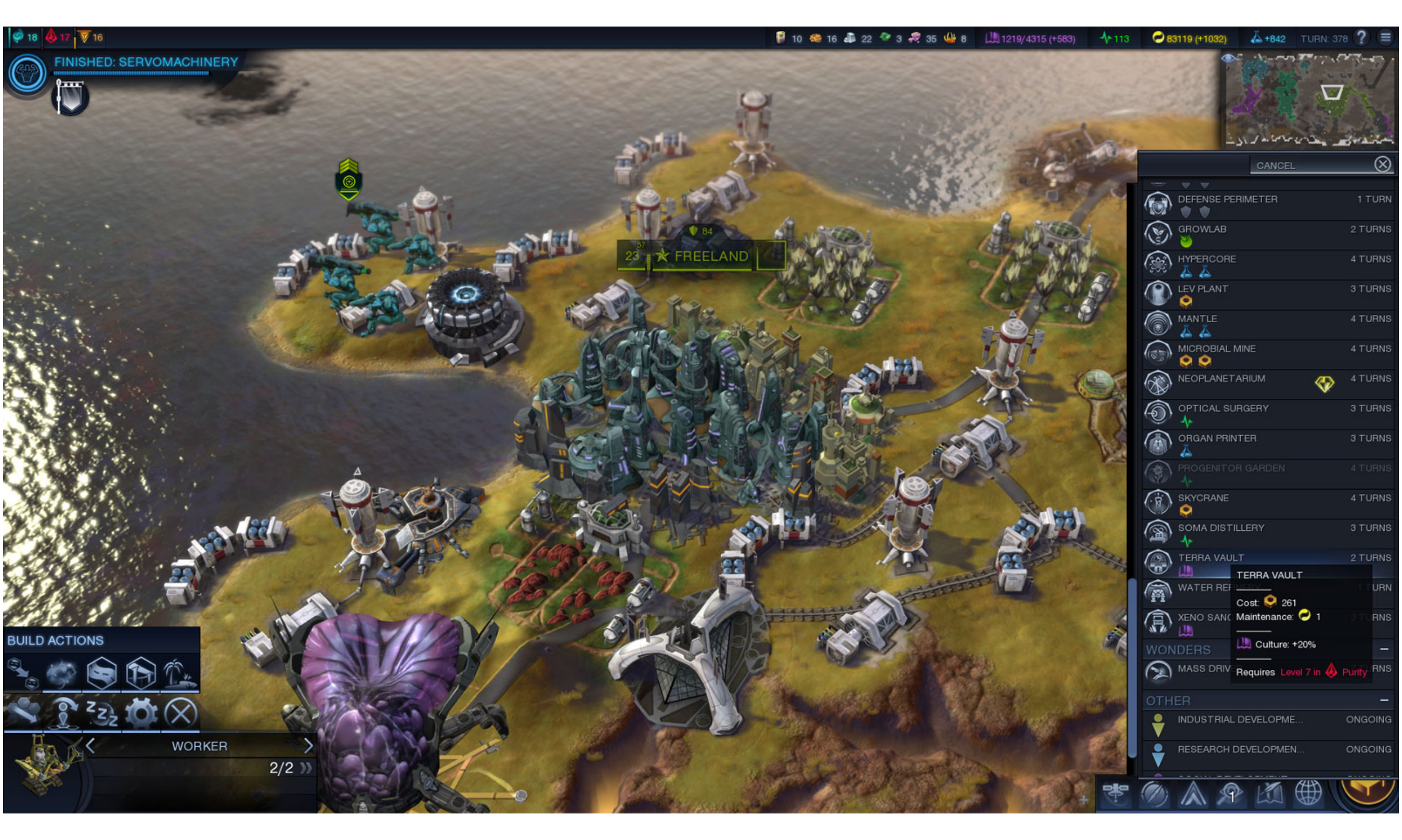
Examples of first-tier Buildings are the Old Earth Relic, the Thorium Reactor, the Clinic, the Laboratory, and the Vivarium.

Second-tier Buildings are going to be researched on the next circle farther out in the Technology Web. The cost is over double what the early buildings cost, and the bonuses are not always that much more powerful. Second-tier Buildings may or may not always be necessary in each city. This is where focused intent in the planning of the city becomes increasingly important.

Examples of second-tier Buildings are the Autoplant, Biofuel plant, Feedsite Hub, and Gene Garden.

Third-tier Buildings are near or along the edges of the Tech Web. Often at least (4) first-tier buildings can be created in the time that it takes to construct (1) third-tier building. While these Buildings do take longer to construct, the perks are also increased making these buildings highly desirable and of greater importance when focusing a city's Production.

Examples of third-tier Buildings are the Microbial Mine, Hypercore, Terra Vault, and Progenitor Garden.

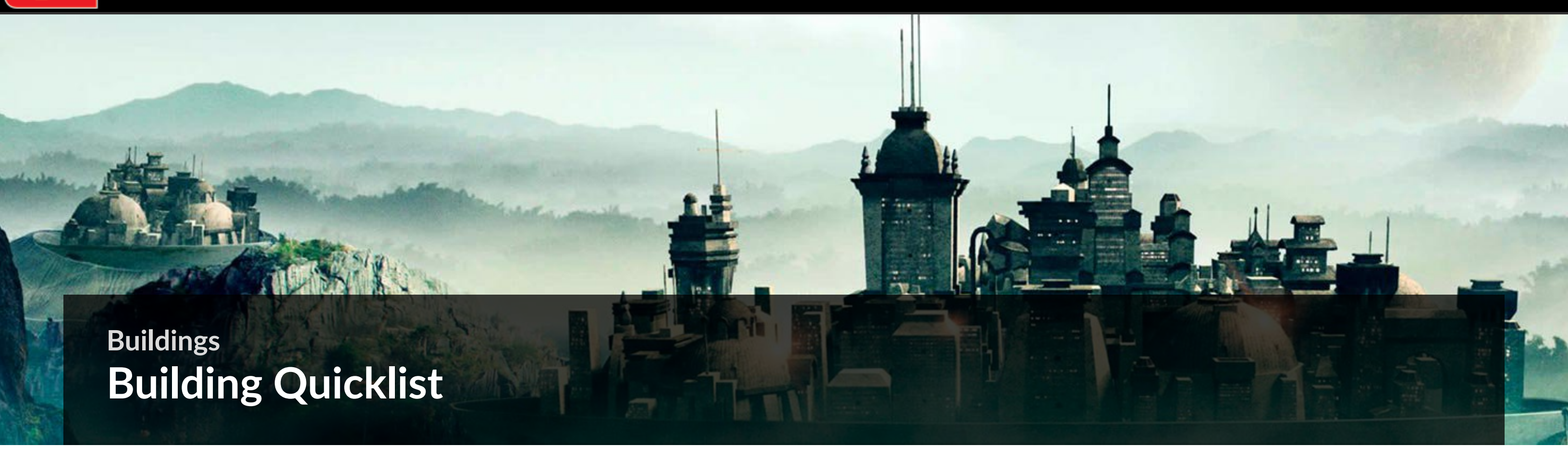


DEFENSE PERIMETER	1 TURN
GROWLAB	2 TURNS
HYPERCORE	4 TURNS
LEV PLANT	3 TURNS
MANTLE	4 TURNS
MICROBIAL MINE	4 TURNS
NEOPLANETARIUM	4 TURNS
OPTICAL SURGERY	3 TURNS
ORGAN PRINTER	3 TURNS
PROGENITOR GARDEN	4 TURNS
SKYCRANE	4 TURNS
SOMA DISTILLERY	3 TURNS
TERRA VAULT	2 TURNS
INDUSTRIAL DEVELOPME...	ONGOING
RESEARCH DEVELOPMEN...	ONGOING

TERRA VAULT
Cost: 261
Maintenance: 1
Culture: +20%
Requires Level 7 in Purity

It is best for cities to get all of their first-tier Buildings completed before starting to focus heavily on other areas of specialization (though if necessity dictates, higher tier Buildings can be started at any time they become available).

Get the first tier of buildings done, and go in the order of needs that the city requires the most. For example, start with a Vivarium building if the city is in a low-Food, high-Production area. Similarly, start with a Trade Depot building if the city or the Colony is heavily in need of Culture, Production, Science, and/or Energy; internal trade routes can also be used to heavily boost more than one city at a time.



Buildings

Building Quicklist

Building Quicklist

Building	Production Cost*	Maintenance	Yield	Prerequisite(s)	Additional Perks
Alien Preserve	125	1 Energy	2 Culture	Alien Lifeforms	N/A
Alloy Foundry	310	1 Energy	2 Production, 2 Production (from Titanium)	Fabrication	2 specialist slots (engineer)
Augmentary	500	N/A	1 Culture, 1 Food, 1 Energy, 1 Science, 1 Production	Augmentation, Level 7 in Supremacy	N/A
Autoplant	210	1 Energy	2 Production, 1 Energy from International City or Station Trade Routes)	Robotics	2 specialist slots (engineer)
Biofactory	290	1 Energy	3 Production, 1 Production (from Chitin)	Organics, Level 4 in Harmony	N/A
Biofuel Plant	220	N/A	3 Energy, 2 Energy (from Algae)	Biology	2 specialist slots (trader)
Bioglass Furnace	470	1 Energy	2 Production, 15% Production bonus	Bioengineering, Firaxite, Level 8 in supremacy	N/A
Bionics Lab	265	1 Energy	20% Health bonus, 1 Production (from Resilin)	Bionics	N/A
Borehole	500	1 Energy	5 Production	Planetary Engineering, Level 8 in Purity	N/A
CEL Cradle	310	1 Energy	N/A	Artificial Intelligence, Level 4 in Supremacy	4 specialist slots (artist)
Civil Crèche	445	1 Energy	2 Food	Social Dynamics	3 specialist slots (grower)
Clinic	60	1 Energy	1 Health, 1 Science	Habitation	N/A
Cloning Plant	210	1 Energy	2 Food, 1 Production (from Xenomass)	Genetic Design	1 specialist slot (grower)
Command Center	310	1 Energy	20 City Strength, 20 City Hit Points	Communications	N/A
Cytonursery	90	1 Energy	1 Health, 1 Science, 1 Food (from Marshes)	Genetics	N/A
Defense Perimeter	150	1 Energy	10 City Strength, 40 City Hit Points	Defense Grid	N/A
Feedsite Hub	225	1 Energy	3 Culture, 1 Science from International City or Station Trade Routes	Communications, Level 2 in Supremacy	N/A
Field Reactor	500	N/A	2 Energy, 10% Energy bonus	Field Theory	2 specialist slots (trader)
Gaian Well	265	N/A	3 Energy	Terraforming, Level 4 in Purity	N/A
Gene Garden	200	1 Energy	2 Health, 1 Science	Genetic Design, Level 2 in Purity	N/A
Gene Smelter	350	1 Energy	3 Health	Transgenics	2 specialist slots (scientist)
Grow Lab	265	1 Energy	3 Food, 1 Food (from Fungus)	Biology, Level 4 in Harmony	N/A
Holosuite	245	1 Energy	2 Culture, 1 Culture (from Firaxite)	Cognition	2 specialist slots (artist)
Hypercore	470	1 Energy	2 Science, 15% Science bonus	Hypercomputing, Firaxite, Level 10 in Supremacy	N/A
Institute	310	1 Energy	N/A	Bionics	3 specialist slots (scientist)
Laboratory	80	1 Energy	2 Science	Chemistry	N/A
Launch Complex	130	1 Energy	3 Orbital Coverage around city	Physics	N/A
LEV Plant	390	1 Energy	4 Production	Mechatronics, Floatstone, Level 5 in Purity	N/A
Mantle	470	1 Energy	3 Science, 10% Science bonus	Field Theory, Floatstone, Level 8 in Purity	N/A
Mass Digester	255	1 Energy	1 Energy (from Tundra)	Organics	4 specialist slots (grower)
Microbial Mine	430	1 Energy, 2 Xenomass	3 Production, 10% Production bonus	Synergetics, Xenomass, Level 7 in Harmony	N/A
Mind Stem	600	1 Energy	Adds 1 point per turn toward Transcendence Victory	Alien Ethics	N/A
Molecular Forge	390	1 Energy	5 Food	Bioengineering, Level 8 in Harmony	N/A
Nanopasture	415	1 Energy	30% Food carried over after Growth	Nanotechnology	2 specialist slots (scientist)
Neoplanetarium	500	1 Energy	40% Production for Orbital units, 3 Orbital Coverage around city	Astrodynamics	N/A
Network	185	1 Energy	3 Science, 1 Science (from Copper)	Computing	N/A
Neurolab	255	1 Energy	10% Science bonus, 1 Science (from Firaxite)	Cognition, Level 4 in Supremacy	N/A
Node Bank	375	1 Energy	24 City Strength, 10 City Hit Points	Cybernetics	2 specialist slots (engineer)
Observatory	100	1 Energy	2 Science, 1 Science (from Firaxite)	Physics, Requires a workable, improved source of Firaxite	N/A
Old Earth Relic	40	1 Energy	2 Culture	Habitation	N/A
Optical Surgery	370	1 Energy	4 Health, 1 Health (from Silica)	Mechatronics, Firaxite, Level 5 in Supremacy	N/A
Organ Printer	390	1 Energy	15% Science bonus	Synergetics, Level 8 in Supremacy	N/A
Petrochemical Plant	160	1 Energy	1 Production (from Petroleum), 1 Energy (from Petroleum)	Biochemistry	1 specialist slot (trader)
Pharmalab	95	1 Energy	2 Health	Genetics	N/A
Progenitor Garden	430	1 Energy	20% Health bonus	Artificial Evolution, Xenomass, Level 10 in Harmony	N/A
Recycler	75	1 Energy	2 Production, 1 Production from Internal City or Station Trade Routes	Chemistry	N/A
Repair Facility	90	1 Energy	10% Production bonus for Land units	Engineering	N/A
Rocket Battery	125	1 Energy	18 City Strength, 15 City Hit Points	Ballistics	N/A
Skycrane	470	1 Energy	15% Production bonus	Astrodynamics, Floatstone, Level 10 in Purity	N/A
Soma Distillery	400	1 Energy	4 Health	Social Dynamics	2 specialist slots (artists)
Surveillance Web	235	1 Energy	5 City Hit Points, Maximum Covert Ops Intrigue for city reduced by 2	Artificial Intelligence	N/A
Terra Vault	390	1 Energy	15% Culture bonus	Social Dynamics, Level 7 in Purity	N/A
Thorium Reactor	105	N/A	3 Energy	Engineering	2 specialist slots (trader)
Trade Depot	60	1 Energy	+1 Production, Allows (2) Trade Routes to be established from the city it is built in	Pioneering	N/A
Ultrasonic Fence	120	1 Energy	Prevents liens from approaching within 2 tiles of city	Ecology	N/A
Vivarium	80	1 Energy	2 Food, 1 Food (from desert), 1 Food from Flood Plains	Ecology	N/A
Water Refinery	150	1 Energy	1 Food & 1 Production from Water tiles *Can only be constructed in cities built on Coastline.	Biochemistry	N/A
Xeno Sanctuary	330	1 Energy	4 Culture, Adds 1 point per turn toward Transcendence Victory	Alien Ethics, Xenomass, Level 5 in Harmony	N/A
Xenofuel Plant	190	N/A	3 Energy, 1 Energy (from Xenomass)	Alien Sciences, Level 2 in Harmony	2 specialist slots (trader)
Xenonursery	180	1 Energy	10% Science bonus, 1 Science (from Xenomass)	Alien Sciences, Level 2 in Harmony	1 specialist slot (scientist)

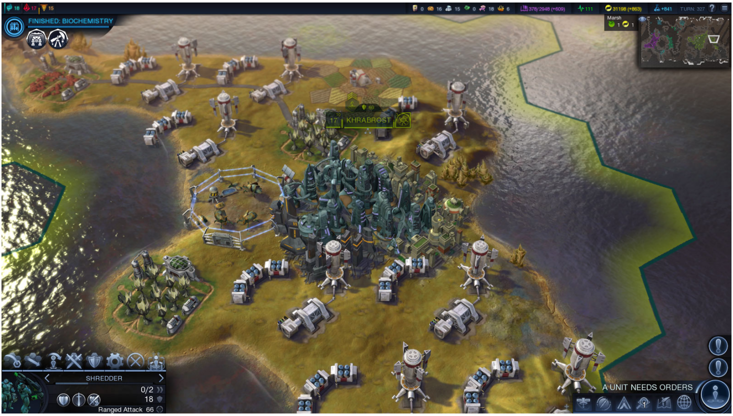
**Numbers listed reflect Standard game Speed.*

Buildings

Building Master List

ALIEN PRESERVE

- **Cost**: 125 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Culture
- **Quest Reward**: +5 Healing for all Units or +1 Science and +1 Energy from Alien Preserves
- **Prerequisite**: Alien Lifeforms


FINISHED: BIOCHEMISTRY
TURN: 327
Marsh
KHRABROST
SHREDDER
0/2
18
Ranged Attack 66
A UNIT NEEDS ORDERS

These buildings do not have the bang for the buck that an Old Earth relic gives; they are there to expand a medium-sized city's Culture. Make sure to get other infrastructure completed before starting to work on second-tier Buildings like this.

ALLOY FOUNDRY

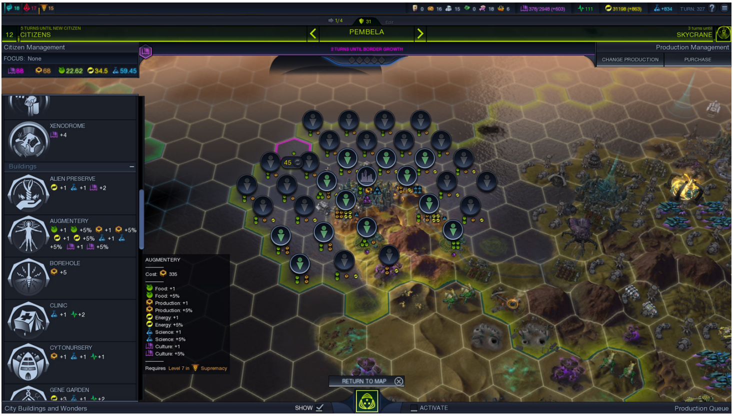
- **Cost**: 310 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Production, +2 Production from Titanium, 2 Specialist Slots (Engineer)
- **Quest Reward**: +2 Production from Titanium Mines or +4 Titanium resources
- **Prerequisite**: Fabrication, Requires a workable, improved source of Titanium

FINISHED: BIOCHEMISTRY
FREELAND
SHREDDER
0/2
18
Ranged Attack 66
A UNIT NEEDS ORDERS
Marsh

Alloy Foundries provide multiple avenues for increased Production. Staff two Engineers as Specialists to increase Production, and any sources of Titanium get even better than they were. High-end military or Wonder-building cities should get Alloy Foundries sooner rather than later.

AUGMENTARY

- **Cost**: 500 Production
- **Maintenance**: N/A
- **Yield**: +1 Culture, +1 Food, +1 Energy, +1 Science, +1 Production
- **Quest Reward**: +10% Health or +5% to all Yields from Augmentaries
- **Prerequisite**: Augmentation, Level 7 in Supremacy

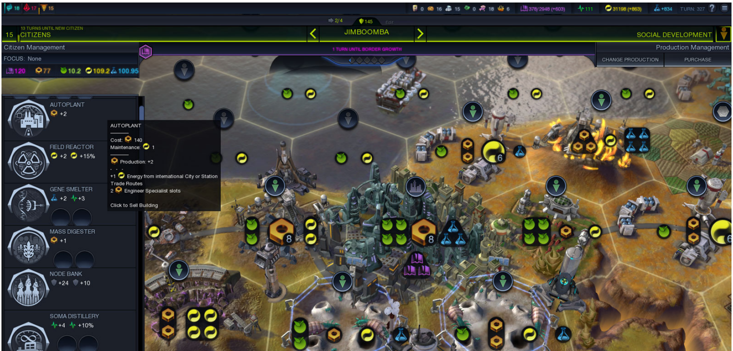

CITIZENS
PEMBELA
SKYCRANE
Citizen Management
Production Management
CHANGE PRODUCTION
PURCHASE
XENODROME
Buildings
ALIEN PRESERVE
AUGMENTERY
BOREHOLE
CLINIC
CYTONURSERY
GENE GARDEN
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

AUGMENTERY
Cost: 335
Food: +1
Food: +5%
Production: +1
Production: +5%
Energy: +1
Energy: +5%
Science: +1
Science: +5%
Culture: +1
Culture: +5%
Requires Level 7 in Supremacy

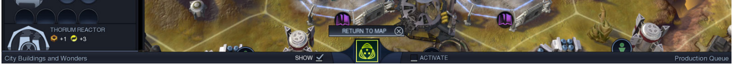
Though very costly to produce, Augmentaries give a huge number of "free" yields. Build these during the late stages of a city's development so that the city does not miss out on multiple other Buildings that are closer to that city's focus.

AUTOPLANT

- **Cost**: 210 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Production, (2) Specialist Slots (Engineer), +1 Energy from International City or Station Trade Routes
- **Quest Reward**: +1 Trade Route or +1 Energy from Autoplants
- **Prerequisite**: Robotics


CITIZENS
JIMBOOMBA
SOCIAL DEVELOPMENT
Citizen Management
Production Management
CHANGE PRODUCTION
PURCHASE
AUTOPLANT
FIELD REACTOR
GENE SMELTER
MASS DIGESTER
NODE BANK
SOMA DISTILLERY

AUTOPLANT
Cost: 140
Maintenance: 1
Production: +2
+1 Energy from international City or Station Trade Routes
2 Engineer Specialist slots
Click to Sell Building


THORIUM REACTOR
+1
+3
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

It is always good to get more Production out of a city. Prioritize this over other sources of Production when working on a heavy Trade city. Even then, make sure that the Trade Depot and Recycler are done first; they are very cheap for the bonuses they provide.

BIOFACTORY

- **Cost**: 290 Production
- **Maintenance**: 1 Energy
- **Yield**: +3 Production, +1 Production from Chitin
- **Quest Reward**: +1 Food or +1 Culture from Biofactories
- **Prerequisite**: Organics, Requires a workable, improved source of Chitin, Level 4 in Harmony

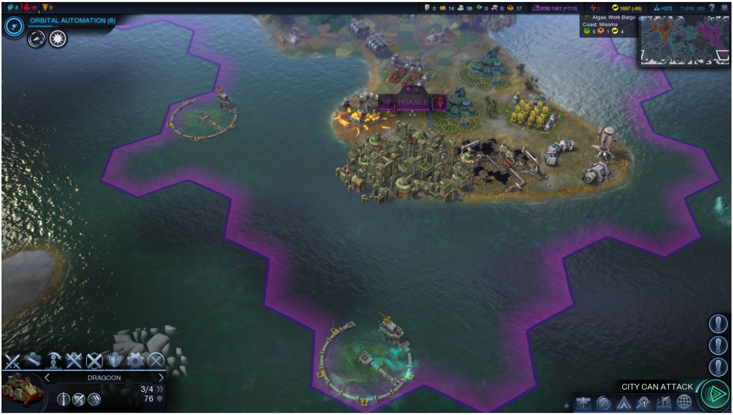
FINISHED: BIOCHEMISTRY
TURN: 327
Marsh
KHRABROST
SHREDDER
0/2
18
Ranged Attack 66
A UNIT NEEDS ORDERS

A solid Production Building in its own right, Biofactories are especially powerful in large, open areas that tend to have more Chitin. When a city doesn't have that, use this as a later Production Building.

BIOFUEL PLANT

- **Cost**: 220 Production
- **Maintenance**: N/A

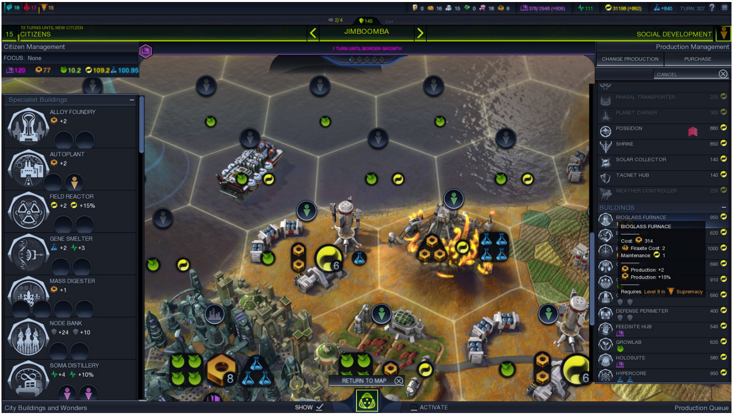
- **Yield**: +3 Energy, 2 Specialist Slots (Trader), +2 Energy from Algae
- **Quest Reward**: +1 Energy or +1 Production from Biofuel Plants
- **Prerequisite**: Biology, Requires a workable, improved source of Algae


ORBITAL AUTOMATION (8)
Algae, Work Barge
Coast, Miasma
TURN: 269
15
HUANLE
DRAGOON
3/4
76
CITY CAN ATTACK

Coastal cities are already nice for Energy, but Biofuel Plants make them even better. Grab a Thorium Reactor first for the low-hanging fruit, and then consider a Biofuel Plant next. If there are two worked sources of Algae, try to get this running before working on the usual city essentials.

BIOGLASS FURNACE

- **Cost**: 470 Production, 2 Firaxite
- **Maintenance**: 1 Energy
- **Yield**: +2 Production, +15% Production
- **Quest Reward**: +2 Production from Firaxite Mines or +4 Firaxite Resources
- **Prerequisite**: Bioengineering, Firaxite, Level 8 in Supremacy

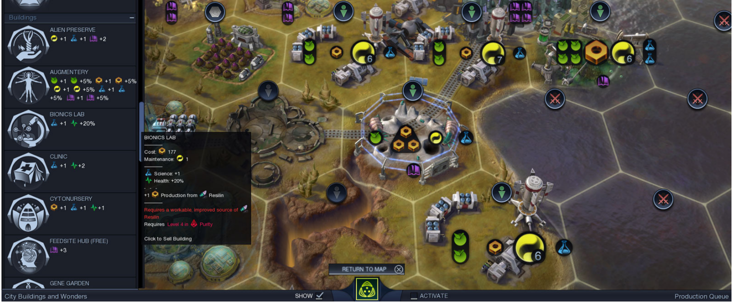

TURN: 327
15 CITIZENS
13 TURNS UNTIL NEW CITIZEN
JIMBOOMBA
SOCIAL DEVELOPMENT
Citizen Management
FOCUS: None
1 TURN UNTIL BORDER GROWTH
Production Management
CHANGE PRODUCTION
PURCHASE
CANCEL
Specialist Buildings
ALLOY FOUNDRY +2
AUTOPLANT +2
FIELD REACTOR +2 +15%
GENE SMELTER +2 +3
MASS DIGESTER +1
NODE BANK +24 +10
SOMA DISTILLERY +4 +10%
PHASAL TRANSPORTER 220
PLANET CARVER 300
POSEIDON 880
SHRIKE 850
SOLAR COLLECTOR 140
TACNET HUB 140
WEATHER CONTROLLER 220
BUILDINGS
BIOGLASS FURNACE 950
BIOGLASS FURNACE
Cost: 314
Firaxite Cost: 2
Maintenance: 1
Production: +2
Production: +15%
Requires Level 8 in Supremacy
DEFENSE PERIMETER 400
FEEDSITE HUB 540
GROWLAB 620
HOLOSUITE 580
HYPERCORE 950
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

These buildings are extremely expensive. Don't try to get one running before establishing a full range of city basics and also working on a couple of mid-tier Production facilities (an Alloy Foundry, an Autoplant, etc.). Bioglass Furnaces aren't very efficient unless a city already has a fair amount of its own Production capacity.

BIONICS LAB

- **Cost**: 265 Production
- **Maintenance**: 1 Energy
- **Yield**: 20% Health, +1 Production from Resilin
- **Quest Reward**: +1 Science or +1 Culture from Bionics Labs
- **Prerequisite**: Bionics, Requires a workable, improved source of Resilin, Level 4 in Purity

TURN: 327
18 CITIZENS
16 TURNS UNTIL NEW CITIZEN
RANGI
XENO SANCTUARY
1 turn until
Citizen Management
FOCUS: None
2 TURNS UNTIL BORDER GROWTH
Production Management
CHANGE PRODUCTION
PURCHASE

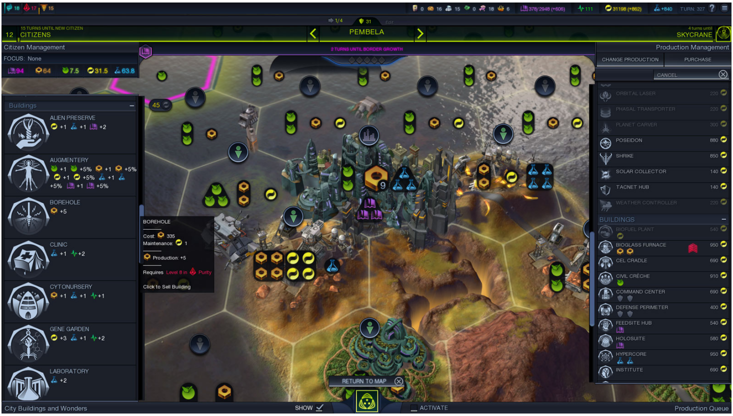

Buildings
ALIEN PRESERVE +1 +1 +2
AUGMENTERY +1 +5% +1 +5% +1 +5% +1 +5% +1 +5%
BIONICS LAB +1 +20%
CLINIC +1 +2
CYTONURSERY +1 +1 +1
FEEDSITE HUB (FREE) +3
GENE GARDEN
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

BIONICS LAB
Cost: 177
Maintenance: 1
Science: +1
Health: +20%
+1 Production from Resilin
Requires a workable, improved source of Resilin
Requires Level 4 in Purity
Click to Sell Building

Bionics labs help to keep the Colony healthy even when cities become massive across the land. Use these as a late-game Health structure for a city. They won't add much until multiple other Health buildings are finished first.

BOREHOLE

- **Cost**: 500 Production
- **Maintenance**: 1 Energy
- **Yield**: +5 Production
- **Quest Reward**: +5% City Production or +5% City Energy from Boreholes
- **Prerequisite**: Planetary Engineering, Level 8 in Purity


18 17 15
0 16 15 0 18 6
378/2948 (+606)
111
31198 (+862)
+840
TURN: 327
1/4
31
15 TURNS UNTIL NEW CITIZEN
12 CITIZENS
PEMBELA
4 turns until
SKYCRANE
Citizen Management
FOCUS: None
94 64 7.5 31.5 63.8
2 TURNS UNTIL BORDER GROWTH
45
Buildings
ALIEN PRESERVE +1 +1 +2
AUGMENTERY +1 +5% +1 +5% +1 +5% +1 +5% +1 +5%
BOREHOLE +5
CLINIC +1 +2
CYTONURSERY +1 +1 +1
GENE GARDEN +3 +1 +2
LABORATORY +2
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

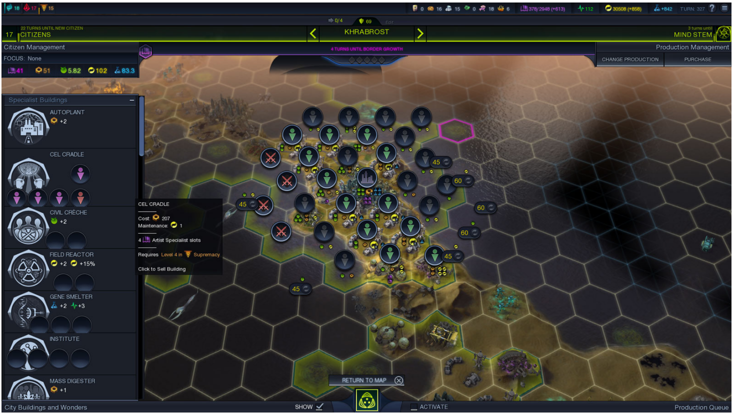
BOREHOLE
Cost: 335
Maintenance: 1
Production: +5
Requires Level 8 in Purity
Click to Sell Building

Production Management
CHANGE PRODUCTION
PURCHASE
CANCEL
ORBITAL LASER 220
PHASAL TRANSPORTER 220
PLANET CARVER 300
POSEIDON 880
SHRIKE 850
SOLAR COLLECTOR 140
TACNET HUB 140
WEATHER CONTROLLER 220
BUILDINGS
BIOFUEL PLANT 540
BIOGLASS FURNACE 950
CEL CRADLE 690
CIVIL CRÈCHE 910
COMMAND CENTER 690
DEFENSE PERIMETER 400
FEEDSITE HUB 540
HOLOSUITE 580
HYPERCORE 950
INSTITUTE 690

Boreholes are wonderful for well-developed cities that need a large flat bonus to Production. They are best prioritized for cities that are important but only have a moderate amount of Production despite their size.

CEL CRADLE

- **Cost**: 310 Production
- **Maintenance**: 1 Energy
- **Yield**: 4 Specialist Slots (Artist)
- **Quest Reward**: +1 Covert Agent or +10% Food carried over after Growth in cities with CEL cradles
- **Prerequisite**: Artificial Intelligence, Level 4 in Supremacy


18
17
15
22 TURNS UNTIL NEW CITIZEN
17 CITIZENS
KHRABROST
4 TURNS UNTIL BORDER GROWTH
3 turns until
MIND STEM
Citizen Management
FOCUS: None
41
51
5.82
102
83.3
Production Management
CHANGE PRODUCTION
PURCHASE
Specialist Buildings
AUTOPLANT
+2
CEL CRADLE
CIVIL CRÈCHE
+2
FIELD REACTOR
+2
+15%
GENE SMELTER
+2
+3
INSTITUTE
MASS DIGESTER
+1
45
60
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue
TURN: 327

CEL CRADLE

Cost: 207

Maintenance: 1

4 Artist Specialist slots

Requires Level 4 in Supremacy

Click to Sell Building

Hold off on CEL Cradles until a huge surge in Culture is needed. Without any baseline bonuses, these Buildings aren't worth the time until there is a large enough city with a high Population that can staff the Building with Artists. Once the city can afford to dedicate several people to that cause, it's worth constructing a CEL Cradle. Otherwise, consider this a non-immediate Building.

CIVIL CRÈCHE

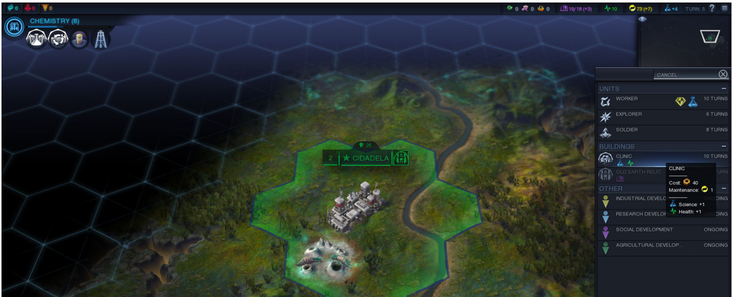
- **Cost**: 445 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Food, 3 Specialist Slots (Grower)
- **Quest Reward**: +5% Food from Civil Crèches or 10% Worker Speed
- **Prerequisite**: Social Dynamics

FINISHED: BIOCHEMISTRY
TURN: 327
Coast
USPEKH
COBRA
2/4
68
A UNIT NEEDS ORDERS

Like a super Vivarium, these Crèches are essential for continued Growth when a city starts to exhaust the natural Resources of Food in its area. If more Farms or Biowells cannot be built (or other improvements are needed), use Civil Crèches to eke out just a bit more Population potential.

CLINIC

- **Cost**: 60 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 Health, +1 Science
- **Quest Reward**: +15 City Hit Points or +1 Health from clinics
- **Prerequisite**: Habitation


CHEMISTRY (8)
TURN: 5
CANCEL
UNITS
WORKER
10 TURNS
EXPLORER
6 TURNS
SOLDIER
8 TURNS
BUILDINGS
CLINIC
10 TURNS
OLD EARTH RELIC
OTHER
INDUSTRIAL DEVELO
RESEARCH DEVELOP
SOCIAL DEVELOPMENT
ONGOING
AGRICULTURAL DEVELOP...
ONGOING
CLINIC
Cost: 40
Maintenance: 1
Science: +1
Health: +1
CIDADELA

Clinics are a first-tier Building. The easy Health and Science that adds to a city and to the Colony are so inexpensive that every city should get one. The difficulty is in deciding whether to prioritize Food, Health, or Production for a city. These yields are usually very important when settling new areas. Clinics build up Health while still contributing toward the Colony's Science total, so they are a must build (especially in the early game, when every point of Health and Science is needed).

CLONING PLANT

- **Cost**: 210 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Food, 1 Specialist Slot (Grower), +1 Production from Xenomass
- **Quest Reward**: 10% of Food carried over after city Growth or +1 Health from Cloning Plants
- **Prerequisite**: Genetic Design, Requires a workable, improved source of Xenomass

NEURAL UPLOADING (10)
SERIK
Chitin, Paddock
Desert
TURN: 150
SABR
1/1
16
Ranged Attack 58
A UNIT NEEDS ORDERS

This mid-tier Growth Building helps create larger cities and get them going sooner rather than later. Avoid these if a city is having problems with Health and does not need the extra Population that quickly. If a city is deep into negative Health, slow down on Food until things smooth out.

COMMAND CENTER

- **Cost**: 310 Production
- **Maintenance**: 1 Energy
- **Yield**: +20 City Strength, +20 City Hit Points
- **Quest Reward**: +15 City Strength or +1 Covert Agent from Command Centers
- **Prerequisite**: Communications

PHYSICS (11)
Lake
TURN: 3
TIANGONG
Resource Pod discovered
CHOOSE PRODUCTION

Command Centers help to defend a city from attackers. The extra Hit Points and Strength often add more time to get reinforcements to the city, increasing the chance of beating back invaders before they come in and wreck the city.

Do not substitute defensive Buildings for a standing army. No city stands for long without people to defend it, even with good structures like this around its perimeter.

CYTONURSERY

- **Cost**: 90 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 Health, +1 Science, +1 Food from Marshes
- **Quest Reward**: +5% Production for Military units or +1 Production from Cytonurseries
- **Prerequisite**: Genetics

MOBILE LEV (9)
Marsh
TURN: 177
ASRAYA
PLEASE WAIT

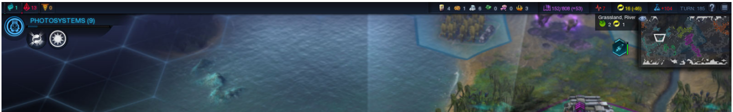
Your Dragoon (10 damage) was bombarded by the enemy City of Asraya!

Processing Turn For Polystralia

This is another first-tier Building. Construct them in cities because of their Health and Science benefits coupled with low cost. Make this the first item when settling in a Marsh. The building will pay for itself even when there is a rush to drain the Marsh.

DEFENSE PERIMETER

- **Cost**: 150 Production
- **Maintenance**: 1 Energy
- **Yield**: +10 City Strength, +40 City Hit Points
- **Quest Reward**: +10 City Hit Points or Free Maintenance for Defense Perimeters
- **Prerequisite**: Defense Grid

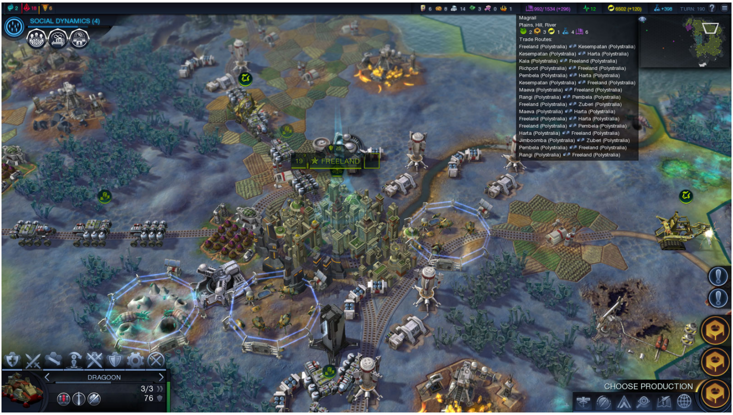

PHOTOSYSTEMS (9)
Grassland, River
TURN: 185

ASRAYA
DRAGOON
UNIT IS OUT OF MOVES
0/4
76
NEXT TURN

Defense Perimeters are an extremely great value for their Production cost. As usual, do not build these in every city unless there is a clear and present threat, but if a defensive building is needed, this is the one to rush. The focus on City Hit Points over City Strength is favored because it will usually buy more time during a siege attempt. Because of the lower Production cost, this is also a faster and less expensive choice.

FEEDSITE HUB

- **Cost**: 225 Production
- **Maintenance**: 1 Energy
- **Yield**: +3 Culture, +1 Science from International City or Station Trade Routes
- **Quest Reward**: +1 Covert Agent from Feedsite Hubs or +10% Worker Speed
- **Prerequisite**: Communications, Level 2 in Supremacy

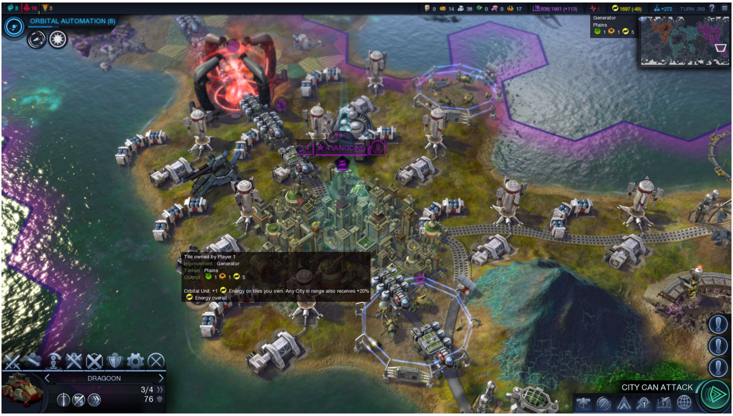

SOCIAL DYNAMICS (4)
992/1534 (+296)
12
6502 (+120)
FREELAND
DRAGOON
3/3
76
CHOOSE PRODUCTION

Magrail
Plains, Hill, River
2 3 1 4 6
Trade Routes:
Freeland (Polystralia) Kesempatan (Polystralia)
Kesempatan (Polystralia) Harta (Polystralia)
Kala (Polystralia) Freeland (Polystralia)
Richport (Polystralia) Freeland (Polystralia)
Pembela (Polystralia) Harta (Polystralia)
Kesempatan (Polystralia) Freeland (Polystralia)
Maeva (Polystralia) Freeland (Polystralia)
Rangi (Polystralia) Pembela (Polystralia)
Freeland (Polystralia) Zuberi (Polystralia)
Maeva (Polystralia) Harta (Polystralia)
Freeland (Polystralia) Harta (Polystralia)
Freeland (Polystralia) Pembela (Polystralia)
Harta (Polystralia) Freeland (Polystralia)
Jimboomba (Polystralia) Zuberi (Polystralia)
Pembela (Polystralia) Freeland (Polystralia)
Rangi (Polystralia) Freeland (Polystralia)

Feedsite Hubs are wonderful cultural structures. They have a solid baseline bonus for a city, and the free Science from International City or Station Trade Routes adds a rather substantial perk on top of Culture generation. Always strive to max out the number of Trade Routes, which will make this Building offer even more yields. Not bad at all!

FIELD REACTOR

- **Cost**: 500 Production
- **Maintenance**: N/A
- **Yield**: +2 Energy, +10% Energy, 2 Specialist Slots (Trader)
- **Quest Reward**: +5% Energy or +2 Orbital Coverage for Field Reactors
- **Prerequisite**: Field Theory


ORBITAL AUTOMATION (8)
TIANGONG
Generator
Plains
TURN: 269
DRAGOON
3/4
76
CITY CAN ATTACK

Tile owned by Player 1
Improvement : Generator
Terrain : Plains
Output : 1 1 5

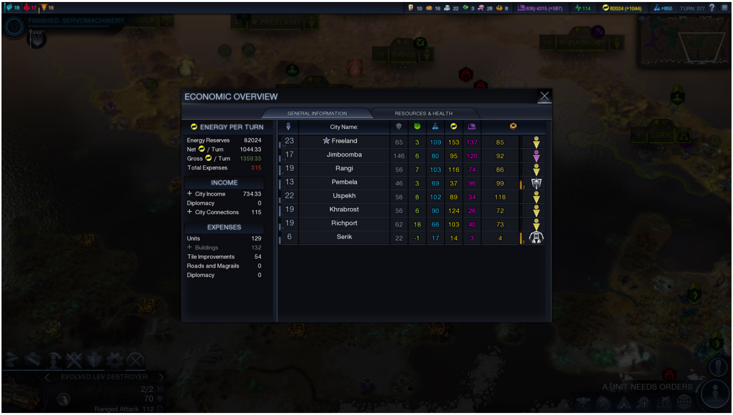
Orbital Unit. +1 Energy on tiles you own. Any City in range also receives +20% Energy overall.

Though incredibly costly and slow to build, Field Reactors provide a major economic boost once they are completed. Hold off on these until dealing with especially large cities. That is when the Energy really comes into play. Otherwise, it is like building an inferior Thorium Reactor at a much greater investment cost. For maximum fun, choose a city that is supposed to be a financial pillar, ring it with Generators, and then get a Field Reactor built inside of it.

GAIAN WELL

- **Cost**: 265 Production
- **Maintenance**: N/A
- **Yield**: +3 Energy

- **Quest Reward**: +2 Energy or +1 Production from Gaian Wells
- **Prerequisite**: Terraforming, Requires a workable, improved source of Geothermal, Level 4 in Purity


FINISHED: SERVOMACHINERY
FREELAND
RANGI
KHRABROST
SERIK
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
A UNIT NEEDS ORDERS
TURN: 377

ECONOMIC OVERVIEW

GENERAL INFORMATION | RESOURCES & HEALTH

ENERGY PER TURN

Energy Reserves	82024
Net / Turn	1044.33
Gross / Turn	1359.33
Total Expenses	315
INCOME	
+ City Income	734.33
Diplomacy	0
+ City Connections	115
EXPENSES	
Units	129
+ Buildings	132
Tile Improvements	54
Roads and Magrails	0
Diplomacy	0

	City Name:						
23	☆ Freeland	65	3	109	153	137	85
17	Jimboomba	146	6	80	95	120	92
19	Rangi	56	7	103	116	74	86
13	Pembela	46	3	69	37	96	99
22	Uspekh	58	8	102	89	34	118
19	Khrabrost	56	6	90	124	26	72
19	Richport	62	18	66	103	40	73
6	Serik	22	-1	17	14	3	4

Gaian Wells create even more Energy from a city. They are not first-tier Buildings, like Thorium Reactors, but they are a good second choice when even more money is needed from a location.

GENE GARDEN

- **Cost**: 200 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Health, +1 Science
- **Quest Reward**: +3 Energy or +1 Health from Gene Gardens
- **Prerequisite**: Genetic Design, Requires Level 2 in Purity

FINISHED: SERVOMACHINERY
TURN: 377
Ocean
17 JIMBOOMBA
22 USPEKH
13 PEMBELA
23 FREELAND

19 KHRABROST
19 RANGI
19 RICHPORT
6 SERIK
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
A UNIT NEEDS ORDERS

If being an expansionist or having a large nation of growing cities is the focus, Gene Gardens are a necessity. They help stave off negative Health after all of the first-tier Buildings are finished.

GENE SMELTER

- **Cost**: 350 Production
- **Maintenance**: 1 Energy
- **Yield**: +3 Health, 2 Specialist Slots (Scientist)
- **Quest Reward**: +2 Science or +1 Health from Gene Smelters
- **Prerequisite**: Transgenics

NEURAL UPLOADING (4)
117/554 (+84)
4 AINTZA
PICK A BONUS
REDEEMER
4/4
68
CHOOSE PRODUCTION

The Health Level of your colony is Stable (0 or higher).

- 20% speed towards Outpost growth

The basic needs of your people are met, and they rise to the challenges of living on this new planet.

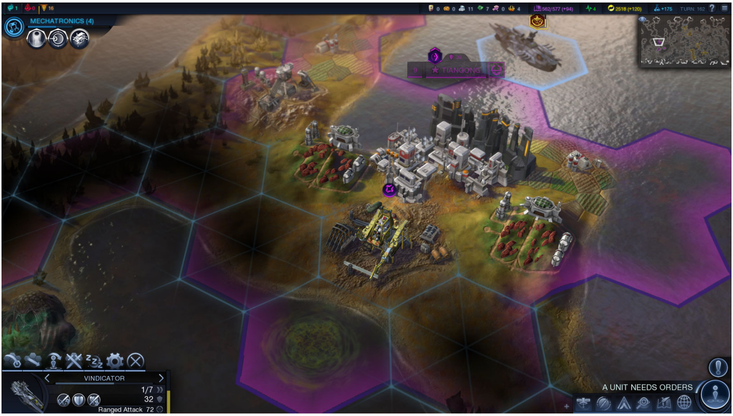
44 positive Health from all sources.
- 28 from Cities.
- 3 from Virtues.
- 13 from other sources.
- 12 from Difficulty Level.
- 1 from other sources.

43 negative Health from all sources.
- 0 from Cities.
- 13 generated from number of Cities.
- 5.2 from number of Occupied Cities.
- 20.47 generated by Population.
- 1.46 generated by Specialists.
- 3.48 from Population in Occupied Cities.

Gene Smelters are a third-tier Building. They help with Health and Science in a well-developed city, but they are way too expensive to rush into cities that are still getting the basic structures down. Only go for these early in a city's development if the Colony is being crippled by Health issues.

GROWLAB

- **Cost**: 265 Production
- **Maintenance**: 1 Energy
- **Yield**: +3 Food, +1 Food from Fungus
- **Quest Reward**: Immediately gain 450 Energy or +1 Free Population in each of your cities
- **Prerequisite**: Biology, Requires a workable, improved source of Fungus, Level 4 in Harmony


MECHATRONICS (4)
TIANGONG
TURN: 162
VINDICATOR
1/7
32
Ranged Attack 72
A UNIT NEEDS ORDERS

Growlabs boost a city's growth by a decent margin. Get the Vivarium first, and then add a Growlab on top of it to maximize growth.

HOLOSUITE

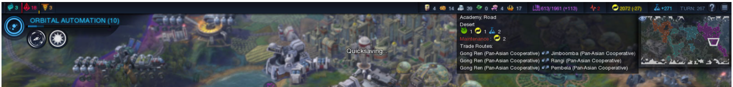
- **Cost**: 245 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Culture, +1 Culture from Firaxite, 2 Specialist Slots (Artist)
- **Quest Reward**: +2 Culture from Holosuites or a Free Virtue
- **Prerequisite**: Cognition, Requires a workable, improved source of Firaxite

MECHATRONICS (4)
USPEKH
4 Firaxite, Firaxite Mine
Plains, River
Maintenance: 2
VINDICATOR
1/7
32
Ranged Attack 72
A UNIT NEEDS ORDERS
TURN: 162

Holosuites are a decent second-tier Culture Building if a city has Firaxite access, which would also indicate a path of Supremacy Affinity. Otherwise, a city is better off with a Feedsite Hub because of the lower cost and higher base output. Of course, if a city gets access to both, there is little reason to not build them both.

HYPERCORE

- **Cost**: 470 Production, 4 Firaxite
- **Maintenance**: 1 Energy
- **Yield**: +2 Science, +15% Science
- **Quest Reward**: +1 Science per Supremacy level or +1 Culture per Supremacy level
- **Prerequisite**: Hypercomputing, Firaxite, Level 10 in Supremacy

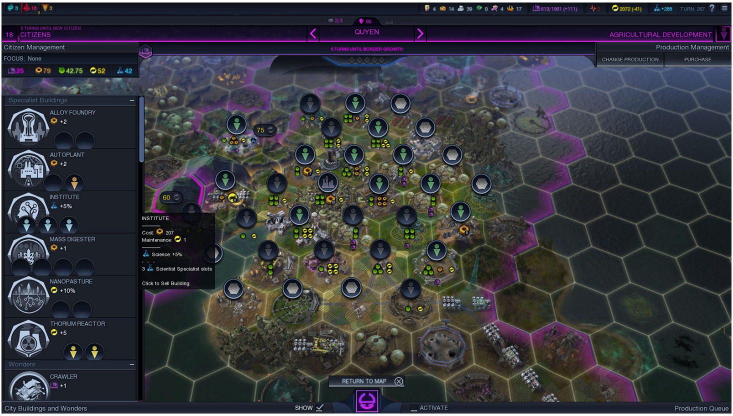

ORBITAL AUTOMATION (10)
Quicksaving...
Academy, Road
Desert
Maintenance: 2
Trade Routes:
Gong Ren (Pan-Asian Cooperative) Jimboomba (Pan-Asian Cooperative)
Gong Ren (Pan-Asian Cooperative) Rangi (Pan-Asian Cooperative)
Gong Ren (Pan-Asian Cooperative) Pembela (Pan-Asian Cooperative)
TURN: 267

10
GONG REN
CHOOSE PRODUCTION

Build Hypercores if third-tier Science structures have just become available. They are best used in highly developed cities. To make them even more effective, choose a location where a city can afford to install Academies in the surrounding tiles.

INSTITUTE

- **Cost**: 310 Production
- **Maintenance**: 1 Energy
- **Yield**: 3 Specialist Slots (Scientist)
- **Quest Reward**: +5% Science from Institutes or 1 Free Technology
- **Prerequisite**: Bionics

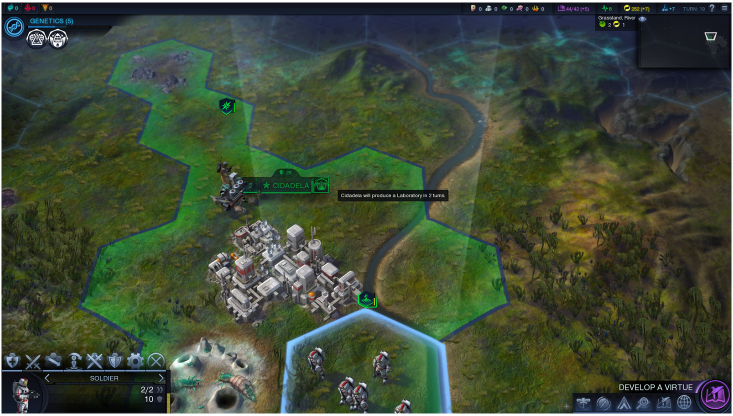

18
5 TURNS UNTIL NEW CITIZEN
CITIZENS
QUYEN
AGRICULTURAL DEVELOPMENT
Citizen Management
FOCUS: None
25
79
42.75
52
42
6 TURNS UNTIL BORDER GROWTH
Production Management
CHANGE PRODUCTION
PURCHASE
TURN: 267
2072 (-41)
+288
613/1961 (+111)
Specialist Buildings
ALLOY FOUNDRY
+2
AUTOPLANT
+2
INSTITUTE
+5%
MASS DIGESTER
+1
NANOPASTURE
+10%
THORIUM REACTOR
+5
Wonders
CRAWLER
+1
75
60
INSTITUTE
Cost: 207
Maintenance: 1
Science: +5%
3 Scientist Specialist slots
Click to Sell Building
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

Institutes add the potential for way more Science in large cities. Wait until a city has a massive population, and then build an Institute so that several more Scientists can be assigned to Specialist Slots. Staff them in this Building, and try to develop as many additional Science Buildings as possible to combine Science bonuses.

That said, rush to construct the first Institute as soon as the Colony gains access to these Buildings. The Quest Reward for getting an Institute running is quite good. A city can get either a short-term boost from free tech or +5% Science to cities with one of these Buildings. Either way, the Colony benefits heavily.

LABORATORY

- **Cost**: 80 Production
- **Maintenance**: 1 Energy
- **Yield: +2 Science Quest Reward**: Explorer units gain (1) Expedition Module or +1 Science from Laboratories
- **Prerequisite**: Chemistry


GENETICS (5)
44/42 (+5)
8
252 (+7)
+7
TURN: 19
Grassland, River
2
1
28
5
9
CIDADELA
2
SOLDIER
2/2
10
DEVELOP A VIRTUE

Cidadela will produce a Laboratory in 2 turns.

Laboratories get small cities going in the realm of Science. They are almost required for getting anything researching in the early game, and every city should build one as part of its first-tier rotation.

LAUNCH COMPLEX

- **Cost**: 130 Production
- **Maintenance**: 1 Energy
- **Yield**: +3 Orbital Coverage around city

- **Quest Reward**: +1 Orbital Coverage or +10% Production for Orbital units from Launch Complexes

- **Prerequisite**: Physics

GENETIC DESIGN (3)
TURN: 149
JIMBOOMBA
MIASMIC REPULSOR
READY TO LAUNCH
CHOOSE PRODUCTION

Greater Orbital Coverage is nice for defense and for clearing distant Miasma (or adding it instead). However, Launch Complexes are not required Buildings for most cities. Tons of coverage can be obtained from other cities inside the borders of the Colony, so these are best installed on the edge of the territory, where the expansion can do the most good. Use Launch Complexes at the beginning of a war or to clear Fog of War (revealing more cities for Spies to infiltrate) to get Orbital Coverage near enemy territory by seeding the skies overhead with Satellites.

LEV PLANT

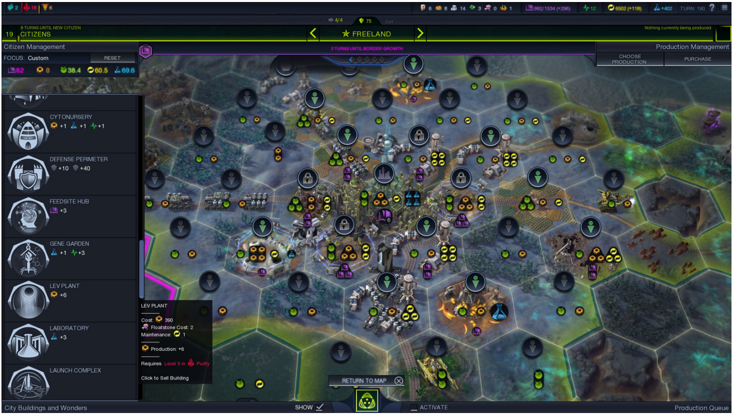
- **Cost**: 390 Production, 2 Floatstone

- **Maintenance**: 1 Energy

- **Yield**: +4 Production

- **Quest Reward**: +2 Production or +2 Energy at LEV Plants

- **Prerequisite**: Mechatronics, Floatstone, Level 5 in Purity


9 TURNS UNTIL NEW CITIZEN
19 CITIZENS
FREELAND
Nothing currently being produced
Citizen Management
FOCUS: Custom
RESET
2 TURNS UNTIL BORDER GROWTH
Production Management
CHOOSE PRODUCTION
PURCHASE
TURN: 190
CYTONURSERY
DEFENSE PERIMETER
FEEDSITE HUB
GENE GARDEN
LEV PLANT
LABORATORY
LAUNCH COMPLEX
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

LEV PLANT

Cost: 390

Floatstone Cost: 2

Maintenance: 1

Production: +6

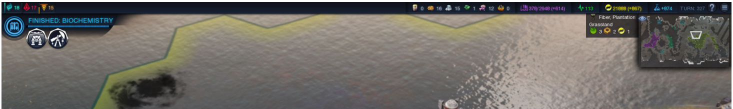
Requires Level 5 in Purity

Click to Sell Building

Players with some decent Purity Research get access to LEV Plants; they are good for adding Production to a city, but they do not have any peripheral bonuses. Only get these installed if especially high Production is needed at a given location. Otherwise, wait until the city is very well developed and has other goodies already constructed.

MANTLE

- **Cost**: 470 Production, 4 Floatstone
- **Maintenance**: 1 Energy
- **Yield**: +3 Science, +10% Science
- **Quest Reward**: +1 Science per Purity level or +1 Energy per Purity level
- **Prerequisite**: Field Theory, Floatstone, Level 8 in Purity


FINISHED: BIOCHEMISTRY
Fiber, Plantation
Grassland
TURN: 327

FREELAND
SHREDDER
0/2
18
Ranged Attack 66
A UNIT NEEDS ORDERS

Freeland will produce a Mantle in 3 turns.

These are third-tier Science buildings that present a nice baseline boost to a city's Science. However, they are still in the position of being too much Production to be worthwhile until a city has a large pool of Science to improve. Otherwise, it is better off adding all of the lower-tier Science Buildings and then working on Scientist Specialists before getting the Mantle running.

⬣ MASS DIGESTER

- **Cost**: 255 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 Energy from Tundra, 4 Specialist Slots (Grower)
- **Quest Reward**: +1 Production or +1 Food from Mass Digesters
- **Prerequisite**: Organics

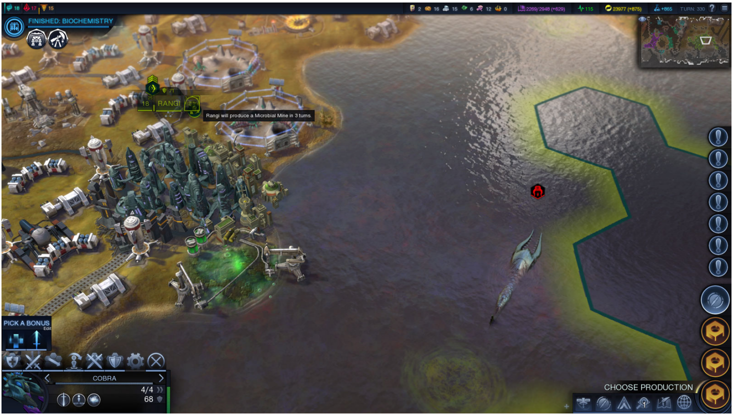
FINISHED: BIOCHEMISTRY
Fruit
Tundra
TURN: 329
PLEASE WAIT

Processing Turn For Aliens

If a city is not near any tundra, wait until the city is incredibly well developed before worrying about a Mass Digesters. The Grower Slots are useful, but they can certainly wait until a city is running out of growing land to improve. However, areas along the Tundra can use the bonus Energy and won't be upset about having Growers to assist with their development.

MICROBIAL MINE

- **Cost**: 430 Production, 2 Xenomass
- **Maintenance**: 1 Energy
- **Yield**: +3 Production, +10% Production
- **Quest Reward**: +1 Energy per Harmony Affinity level or +1 Science per Harmony Affinity level
- **Prerequisite**: Synergetics, Xenomass, Level 7 in Harmony


FINISHED: BIOCHEMISTRY
RANGI
PICK A BONUS
COBRA
CHOOSE PRODUCTION
TURN: 330

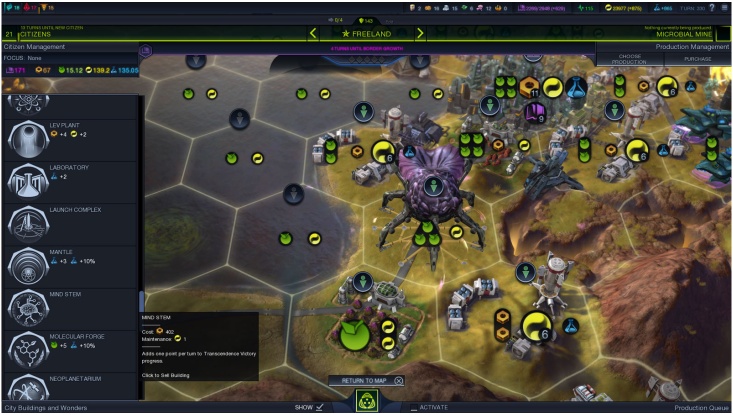
Rangi will produce a Microbial Mine in 3 turns.

Microbial Mines are wonderful in the late-game, high-Production cities. It is wise to build Microbial Mines even as a non-Harmony player; it's fun to construct these and make the most out of spare Xenomass.

MIND STEM

- **Cost**: 600 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 point per turn toward Transcendence Victory
- **Quest Reward**: N/A

- **Prerequisite**: Alien Ethics


13 TURNS UNTIL NEW CITIZEN
21 CITIZENS
FREELAND
Nothing currently being produced.
MICROBIAL MINE
Citizen Management
FOCUS: None
4 TURNS UNTIL BORDER GROWTH
Production Management
CHOOSE PRODUCTION
PURCHASE
LEV PLANT +4 +2
LABORATORY +2
LAUNCH COMPLEX
MANTLE +3 +10%
MIND STEM
MOLECULAR FORGE +5 +10%
NEOPLANETARIUM
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue
TURN: 330

MIND STEM

Cost: 402

Maintenance: 1

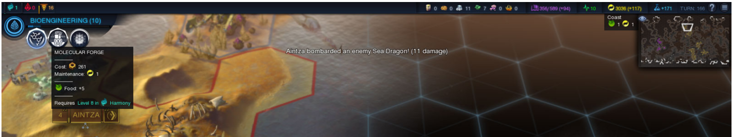
Adds one point per turn to Transcendence Victory progress.

Click to Sell Building

Harmony players with a surplus of Energy can substantially reduce the time toward a Transcendence victory by purchasing these outright. If the Colony's Affinity path is not trying to achieve Victory by Transcendence, then do not even worry about mind stems.

MOLECULAR FORGE

- **Cost**: 390 Production
- **Maintenance**: 1 Energy
- **Yield**: +5 Food
- **Quest Reward**: +10% City Production or +10% City Science from Molecular Forges
- **Prerequisite**: Bioengineering, Level 8 in Harmony


BIOENGINEERING (10)
Coast
AINTZA
TURN: 166

MOLECULAR FORGE

Cost: 261

Maintenance: 1

Food: +5

Requires Level 8 in Harmony

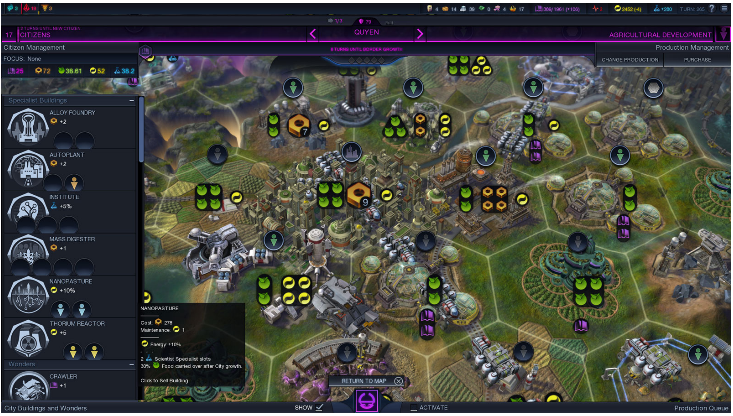
Aintza bombarded an enemy Sea Dragon! (11 damage)

Processing Turn For Aliens
PLEASE WAIT

This is one of the few high-Production Buildings that should be pushed somewhat earlier in a city's growth. The reason is that extra Food makes a huge difference in the time it takes for a city to develop. As long as there is enough money to spare or Production in the city itself, grab a Molecular Forge somewhat earlier (perhaps immediately after finishing first-tier Buildings).

NANOPASTURE

- **Cost**: 415 Production
- **Maintenance**: 1 Energy
- **Yield**: +30% Food carried over after city Growth, 2 Specialist Slots (Scientist)
- **Quest Reward**: +10% City Food or +10% City Energy from Nanopastures
- **Prerequisite**: Nanotechnology


3
18
3
4
14
39
0
4
17
389/1961 (+106)
2
2452 (-4)
+280
TURN: 265
1/3
79
Edit
17
2 TURNS UNTIL NEW CITIZEN
CITIZENS
QUYEN
AGRICULTURAL DEVELOPMENT
Citizen Management
FOCUS: None
25
72
38.61
52
38.2
8 TURNS UNTIL BORDER GROWTH
Production Management
CHANGE PRODUCTION
PURCHASE
Specialist Buildings
ALLOY FOUNDRY
+2
AUTOPLANT
+2
INSTITUTE
+5%
MASS DIGESTER
+1
NANOPASTURE
+10%
THORIUM REACTOR
+5
Wonders
CRAWLER
+1
7
9
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

NANOPASTURE

Cost: 278
Maintenance: 1

Energy: +10%

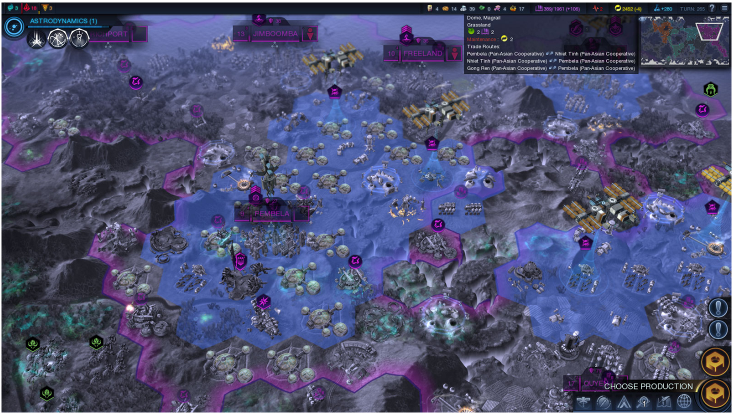
2 Scientist Specialist slots
30% Food carried over after City growth.

Click to Sell Building

Nanopastures, like Molecular Forges, are wonderful Buildings for getting a city up and running. If a city has multiple Food structures and a Nanopasture, the city's development will skyrocket. Add a few Trade Routes for even more Food and some free Production and, after that, almost anything can be accomplished.

NEOPLANETARIUM

- **Cost**: 500 Production
- **Maintenance**: 1 Energy
- **Yield**: +40% Production for Orbital units, Orbital Coverage around the city increased by 3
- **Quest Reward**: +2 Orbital Coverage or +10% Production for Orbital units from Neoplanetariums
- **Prerequisite**: Astrodynamics


ASTRODYNAMICS (1)
13 JIMBOOMBA
10 FREELAND
9 PEMBELA
CHOOSE PRODUCTION
389/1961 (+106)
2452 (-4)
TURN: 265

Dome, Magrail
Grassland
2 2
Maintenance: 2
Trade Routes:
Pembela (Pan-Asian Cooperative) Nhiet Tinh (Pan-Asian Cooperative)
Nhiet Tinh (Pan-Asian Cooperative) Pembela (Pan-Asian Cooperative)
Gong Ren (Pan-Asian Cooperative) Pembela (Pan-Asian Cooperative)

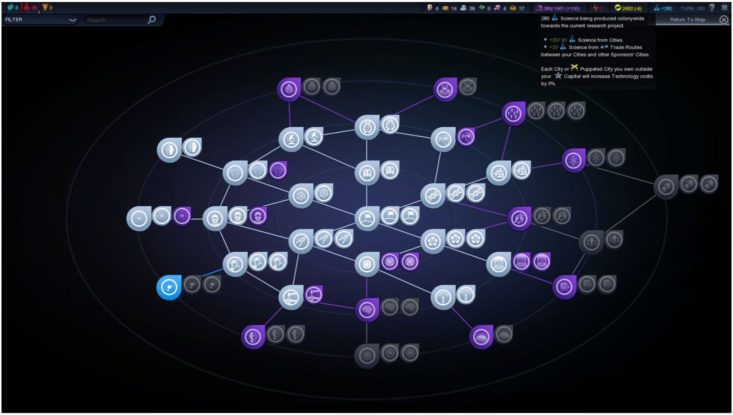
It is not suggested to build these in every city. They are best used selectively in cities that are close to a militant border and need the extra coverage. Alternately, Neoplanetariums are great in cities that are supposed to churn out Orbital units for the rest of the Colony.

If the Colony is not a major Orbital unit producer, consider taking the Production bonus as a Quest reward for getting a Neoplanetarium built. In that case, these become late-game Production Buildings. They are still not cost-efficient, but if maximum Production output is the goal, this Building is another option.

NETWORK

- **Cost**: 185 Production
- **Maintenance**: 1 Energy

- **Yield**: +3 Science, +1 Science from Copper
- **Quest Reward**: Free Maintenance for Networks or +1 Culture from Networks
- **Prerequisite**: Computing


3
18
3
FILTER
Search
4
14
39
0
4
17
389/1961 (+106)
2
2452 (-4)
+280
TURN: 265
Return To Map

280 Science being produced colony-wide towards the current research project.

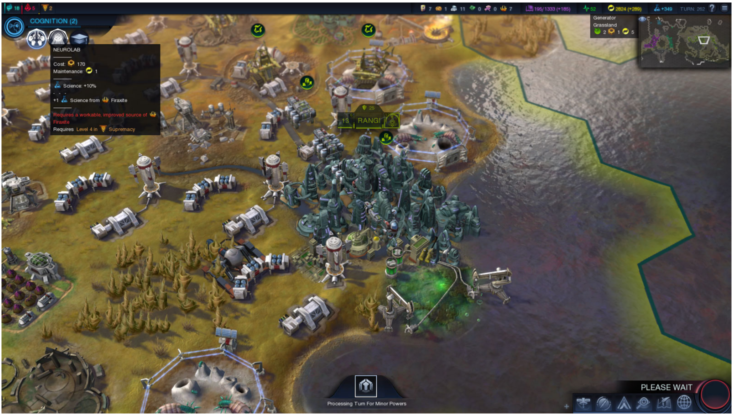
- +257.95 Science from Cities.
- +23 Science from Trade Routes between your Cities and other Sponsors' Cities.

Each City or Puppeted City you own outside your Capital will increase Technology costs by 5%.

Networks are a simple second-tier Science Building. They are needed in every city founded. If a city is focused on scientific progress, treat this as a first-tier Building, constructing it as quickly as possible.

NEUROLAB

- **Cost**: 255 Production
- **Maintenance**: 1 Energy
- **Yield**: +10% Science, +1 Science from Firaxite
- **Quest Reward**: +1 Health or 10% Production for Military units from Neurolabs
- **Prerequisite**: Cognition, Requires a workable, improved source of Firaxite, Level 4 in Supremacy


18
5
2
COGNITION (2)
RANGI
13
25
Generator
Grassland
TURN: 262
PLEASE WAIT
Processing Turn For Minor Powers

NEUROLAB

Cost: 170
Maintenance: 1

Science: +10%

+1 Science from Firaxite

Requires a workable, improved source of Firaxite
Requires Level 4 in Supremacy

Neurolabs aren't hugely expensive, but their bonuses aren't extremely high in newer cities. Use them in larger cities that already have multiple Science Buildings completed.

NODE BANK

- **Cost**: 375 Production
- **Maintenance**: 1 Energy
- **Yield**: +24 City Strength, +10 City Hit Points, 2 Specialist Slots (Engineer)
- **Quest Reward**: +10% City Hit Points or +10% City Strength from node banks
- **Prerequisite**: Cybernetics

10
0
2
ALIEN EVOLUTION (5)
USPEKH
6
22
TURN: 168

You have declared war on General Vadim Kozlov!

Chitin from General Vadim Kozlov ended

BRAWLER
UNIT IS OUT OF MOVES
0/2
30
Open Borders to General Vadim Kozlov ended
CHOOSE PRODUCTION

Node Banks give a city some teeth when fending off aggressors. The extra Strength is good for survival, but the time and expense of a Node Bank is noteworthy. Reserve these for dangerous times of war, or for cities along a contested front that could turn to violence without much warning.

OBSERVATORY

- **Cost**: 100 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Science, +1 Science from Firaxite
- **Quest Reward**: +2 City Strength or +2 Naval unit Movement from Observatories
- **Prerequisite**: Physics, Requires a workable, improved source of Firaxite

FINISHED: COMMUNICATIONS
AINTZA
3754 (+96)
TURN: 168
Firaxite, Firaxite Mine
Tundra
Maintenance: 2
DRAGOON
2/3
76
A UNIT NEEDS ORDERS

These are usually the last of the early Science Buildings, but they are worth pushing to the front if extra Firaxite is accessible.

OLD EARTH RELIC

- **Cost**: 40 Production
- **Maintenance**: 1 Energy

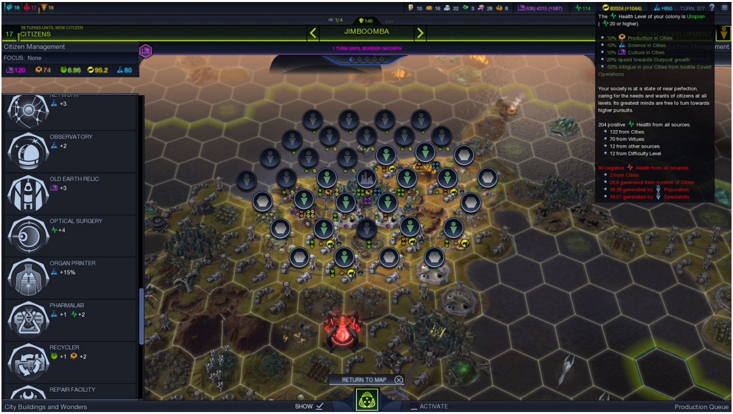
- **Yield**: +2 Culture
- **Quest Reward**: All Relics Free Energy Maintenance or +1 Culture for Old Earth Relics
- **Prerequisite**: Habitation

FINISHED: HABITATION
TURN: 0
Victories Updated
MAKE PLANETFALL

This is a great first item for many cities. It's fast to construct, adds an important Culture bonus, and helps a city's borders grow. There is no way to go wrong with these, regardless of the city's main function. At worst, make these an item after developing the first couple of buildings (e.g., a Trade Depot and Recycler for a Colony with massive internal trade).

OPTICAL SURGERY

- **Cost**: 370 Production, 2 Firaxite
- **Maintenance**: 1 Energy
- **Yield**: +4 Health, +1 Health from Silica
- **Quest Reward**: +1 Visibility range for Military units or +2 Science from Optical Surgeries
- **Prerequisite**: Mechatronics, Firaxite, Level 5 in Supremacy


18
17
16
10
16
22
3
28
8
636/4315 (+587)
114
82024 (+1044)
+850
TURN: 377
1/4
146
Edit
19 TURNS UNTIL NEW CITIZEN
17
CITIZENS
JIMBOOMBA
SOCIAL DEVELOPMENT
Production Management
PURCHASE
Citizen Management
1 TURN UNTIL BORDER GROWTH
FOCUS: None
120
74
6.96
95.2
80
NETWORK
+3
OBSERVATORY
+2
OLD EARTH RELIC
+3
OPTICAL SURGERY
+4
ORGAN PRINTER
+15%
PHARMALAB
+1
+2
RECYCLER
+1
+2
REPAIR FACILITY
RETURN TO MAP
City Buildings and Wonders
SHOW ✓
ACTIVATE
Production Queue

The Health Level of your colony is Utopian (20 or higher).

- 10% Production in Cities
- 10% Science in Cities
- 10% Culture in Cities
- 20% speed towards Outpost growth
- -50% Intrigue in your Cities from hostile Covert Operations

Your society is at a state of near perfection, caring for the needs and wants of citizens at all levels. Its greatest minds are free to turn towards higher pursuits.

204 positive Health from all sources.

- 122 from Cities.
- 70 from Virtues.
- 12 from other sources.
- 12 from Difficulty Level.

90 negative Health from all sources.

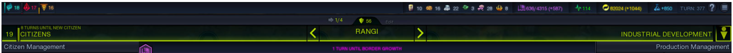
- 2 from Cities.
- 20.8 generated from number of Cities.
- 48.26 generated by Population.
- 19.01 generated by Specialists.

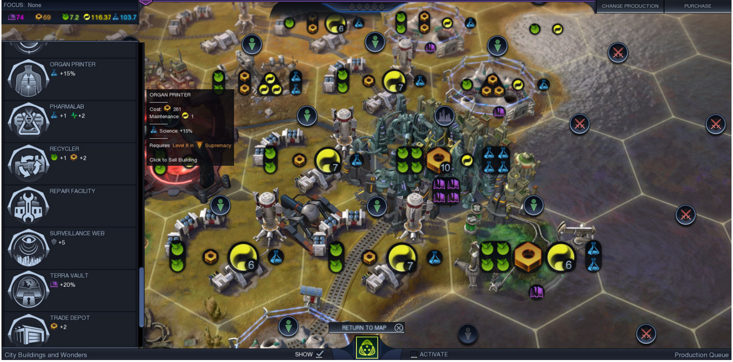
Enjoy the massive Health bonuses. These can either be pushed until way later in a city's career or moved up if the Colony is having trouble with Health. Don't waste much time on adding bonus Health for its own sake.

When Militarily strong, take the bonus Visibility from this Building's Quest Reward. Having this perk with fast Units makes it possible to scout very effectively and hit where opponents are weakest (and avoid counterattacks). Double up with the Panopticon Wonder if possible for even more situational awareness.

ORGAN PRINTER

- **Cost**: 390 Production
- **Maintenance**: 1 Energy
- **Yield**: 15% Science
- **Quest Reward**: +10% City Health from Organ Printers or All Military Units 10% Healing
- **Prerequisite**: Synergetics, Level 8 in Supremacy


18
17
16
10
16
22
3
28
8
636/4315 (+587)
114
82024 (+1044)
+850
TURN: 377
1/4
56
Edit
8 TURNS UNTIL NEW CITIZEN
19
CITIZENS
RANGI
INDUSTRIAL DEVELOPMENT
Citizen Management
1 TURN UNTIL BORDER GROWTH
Production Management


FOCUS: None
74 69 7.2 116.37 103.7
CHANGE PRODUCTION
PURCHASE
ORGAN PRINTER
+15%
PHARMALAB
+1 +2
RECYCLER
+1 +2
REPAIR FACILITY
SURVEILLANCE WEB
+5
TERRA VAULT
+20%
TRADE DEPOT
+2
ORGAN PRINTER
Cost: 261
Maintenance: 1
Science: +15%
Requires Level 8 in Supremacy
Click to Sell Building
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

Hold off on Organ Printers until late in a city's development, as with many of the higher-tier Science Buildings. This is a really good bonus for its Production cost, but the lack of baseline Science ensures that Organ Printers aren't for cities that still need development. Get easy Science Buildings done first, add an Academy or two, and then go for an Organ Printer and an Institute.

PETROCHEMICAL PLANT

- **Cost**: 160 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 Production from Petroleum, +1 Energy from Petroleum, +1 Specialist Slot (Trader)
- **Quest Reward**: +2 Production or +2 Culture from Petrochemical Wells
- **Prerequisite**: Biochemistry, Requires a workable, improved source of Petroleum

FINISHED: SERVOMACHINERY
TURN: 377
3 Petroleum, Petroleum Well
Desert
Maintenance
22 USPEKH

EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
A UNIT NEEDS ORDERS

This is a situational building. If Petroleum is available, the city is going to need this Plant eventually; it is not essential, but the bonuses are decent, and the Building does not take long to finish. This changes if any city has access to multiple units of Petroleum. That tips this Building from okay to very good.

PHARMALAB

- **Cost**: 95 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Health
- **Quest Reward**: +1 Science or +1 Health from Pharmalabs
- **Prerequisite**: Genetics

FINISHED: COGNITION
Farm
Flood Plains, Desert, River
TURN: 121
MAGAN
BANU MUSA
CHOOSE PRODUCTION

These are great first-tier Health Buildings. They're the only way that to get enough Health to expand comfortably, especially in the early game. Without keeping a faithful eye on Health, a Colony can easily fall victim to massive penalties from accruing negative Health. Additionally, founding a new city costs (5) Health. Snagging these quick Health-boosting Buildings will help keep the city and the Colony as a whole progressing forward.

PROGENITOR GARDEN

- **Cost**: 430 Production, 4 Xenomass
- **Maintenance**: 1 Energy
- **Yield**: +20% Health
- **Quest Reward**: +10% City Health or +5% City Science from Progenitor gardens
- **Prerequisite**: Artificial Evolution, Xenomass, Level 10 in Harmony

FINISHED: SERVOMACHINERY
19 RICHPORT
Biowell
Forest, Plains, Hill
Maintenance : 2
TURN: 379
BUILD ACTIONS
WORKER
1/2
CHOOSE PRODUCTION

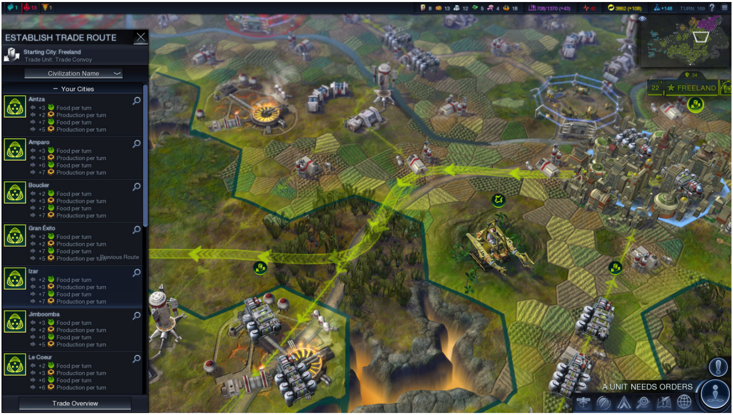
Progenitor Gardens are a third-tier Health Building. They are ideal for large cities that have already completed all of their lesser Health structures. Otherwise, they do not have that much "oomph" and cost way too much to be effective.

Biowells, if placed heavily around the city, work well in conjunction with a Progenitor Garden to create a location with extremely high Food and Health. This is usually going to be overkill in the late game for Colonies with substantial Prosperity investments. However, it might be quite valuable for conquerors who don't have many pro-Health Virtues.

RECYCLER

- **Cost**: 75 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Production, +1 Production from Internal City or Station Trade Routes
- **Quest Reward**: +10% Worker speed or +1 Food from Recyclers

- **Prerequisite**: Chemistry


ESTABLISH TRADE ROUTE
Starting City: Freeland
Trade Unit: Trade Convoy
Civilization Name
Your Cities
Previous Route
Trade Overview
FREELAND
A UNIT NEEDS ORDERS
TURN: 169

Aintza
+3 Food per turn
+2 Production per turn
+7 Food per turn
+5 Production per turn

Amparo
+3 Food per turn
+3 Production per turn
+6 Food per turn
+7 Production per turn

Bouclier
+2 Food per turn
+3 Production per turn
+7 Food per turn
+7 Production per turn

Gran Éxito
+2 Food per turn
+2 Production per turn
+7 Food per turn
+5 Production per turn

Izar
+2 Food per turn
+3 Production per turn
+7 Food per turn
+7 Production per turn

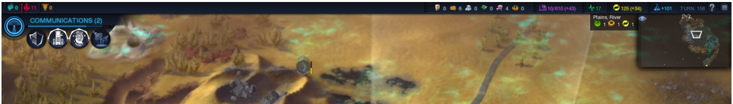
Jimboomba
+3 Food per turn
+2 Production per turn
+6 Food per turn
+5 Production per turn

Le Coeur
+2 Food per turn
+3 Production per turn
+6 Food per turn
+6 Production per turn

Recyclers are excellent first-tier Production Buildings. They're already cost-efficient on their own, and they're absolutely wonderful if when using Trade Routes to build up a new city. Hurry to build (or outright purchase) a Trade Depot and a Recycler for each new city. Add Internal Trade Routes to and from each city in a Colony to gain high Production and faster Growth. Additionally, the Production that the Recycler contributes will speed up the construction of other necessary Buildings and Units. Recyclers can add as much to a city as a Borehole, but at a fraction of the cost.

REPAIR FACILITY

- **Cost**: 90 Production
- **Maintenance**: 1 Energy
- **Yield**: +10% Production for Land units
- **Quest Reward**: +1 Orbital Coverage or +5% Production for Military units from Repair Facilities
- **Prerequisite**: Engineering


COMMUNICATIONS (2)
Plains, River
TURN: 158

7
AINTZA
CENTURION
1/3
64
CITY CAN ATTACK

Repair Facilities are low cost and appear early in the Tech Web, so expect them to be a first-tier Building. However, it can be argued that they are better regarded as a second-tier structure. All cities need Repair Facilities. They are used to improve the speed of Production for all Land units, and while not all cities need to churn out Military units, throughout the game many Land units are utilized. That said, prioritize Repair Facilities in places that are going to be major Military unit producers.

ROCKET BATTERY

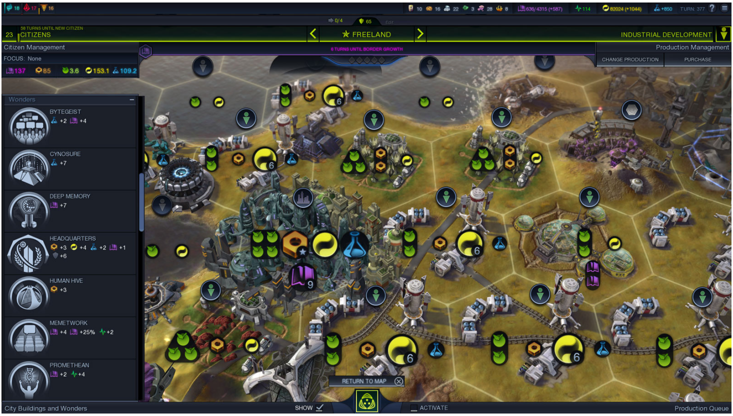
- **Cost**: 125 Production
- **Maintenance**: 1 Energy
- **Yield**: +18 City Strength, +15 City Hit Points, +3 Range for Anti-Orbital Strike
- **Quest Reward**: +5 City Strength or +1 City Orbital Strike Range from Rocket Batteries
- **Prerequisite**: Ballistics

COMMUNICATIONS (2)
13 Firaxite
Forest, Tundra, Hill
TURN: 158
2
FIDELE
CITY CAN ATTACK

Rocket Batteries make cities quite a bit tougher to siege and capture. The bonus to City Strength and Hit Points is noticeable, but do not rush to overbuild these. Protect borders of the Colony, and have a good military to defend the cities that are in the most danger. Don't waste too much time, Energy, or Production on defenses for cities that aren't going to be threatened.

SKYCRANE

- **Cost**: 470 Production, 4 Floatstone
- **Maintenance**: 1 Energy
- **Yield**: +15% Production
- **Quest Reward**: +2 Production from Floatstone Quarries or +4 Floatstone from Skycranes
- **Prerequisite**: Astrodynamics, Floatstone, Level 10 in Purity

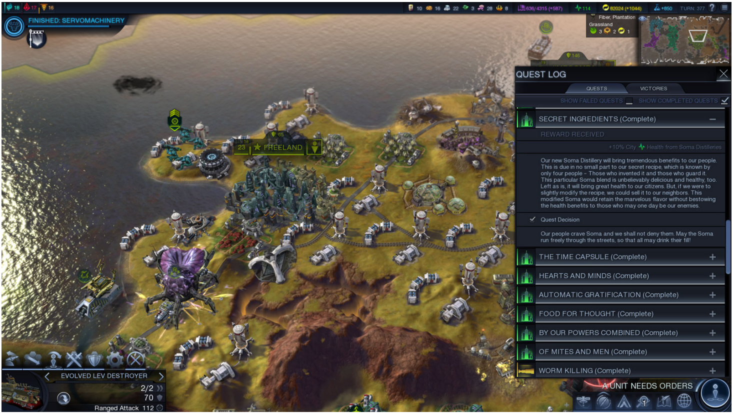

58 TURNS UNTIL NEW CITIZEN
23 CITIZENS
FREELAND
INDUSTRIAL DEVELOPMENT
Citizen Management
FOCUS: None
6 TURNS UNTIL BORDER GROWTH
Production Management
CHANGE PRODUCTION
PURCHASE
Wonders
BYTEGEIST
CYNOSURE
DEEP MEMORY
HEADQUARTERS
HUMAN HIVE
MEMETWORK
PROMETHEAN
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

Skycranes are third-tier Production Buildings. They are perfect for areas that already have massive Production output and need every point for late-game Wonders or Military unit output.

SOMA DISTILLERY

- **Cost**: 400 Production
- **Maintenance**: 1 Energy
- **Yield**: +4 Health, 2 Specialist Slots (Artist)
- **Quest Reward**: +10% City Health or +5% City Culture from Soma Distilleries

- **Prerequisite**: Social Dynamics


FINISHED: SERVOMACHINERY
FREELAND
QUEST LOG
QUESTS
VICTORIES
SHOW FAILED QUESTS ☐
SHOW COMPLETED QUESTS ☑
EVOLVED LEV DESTROYER
Ranged Attack 112
A UNIT NEEDS ORDERS
TURN: 377

SECRET INGREDIENTS (Complete)

REWARD RECEIVED

+10% City Health from Soma Distilleries

Our new Soma Distillery will bring tremendous benefits to our people. This is due in no small part to our secret recipe, which is known by only four people – Those who invented it and those who guard it. This particular Soma blend is unbelievably delicious and healthy, too. Left as is, it will bring great health to our citizens. But, if we were to slightly modify the recipe, we could sell it to our neighbors. This modified Soma would retain the marvelous flavor without bestowing the health benefits to those who may one day be our enemies.

☑ Quest Decision

Our people crave Soma and we shall not deny them. May the Soma run freely through the streets, so that all may drink their fill!

THE TIME CAPSULE (Complete)

HEARTS AND MINDS (Complete)

AUTOMATIC GRATIFICATION (Complete)

FOOD FOR THOUGHT (Complete)

BY OUR POWERS COMBINED (Complete)

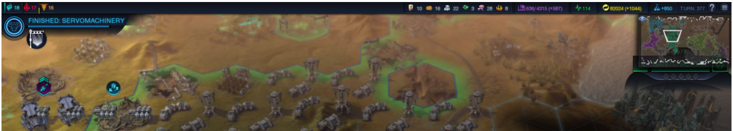
OF MITES AND MEN (Complete)

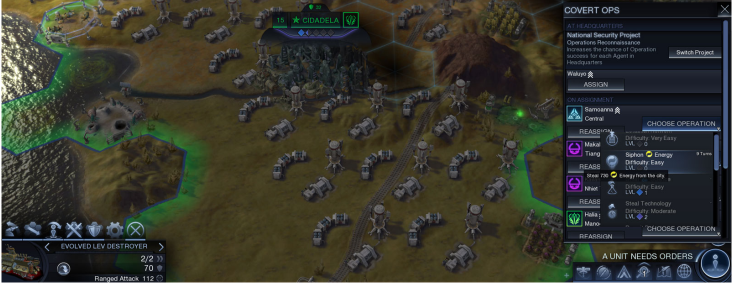
WORM KILLING (Complete)

Add substantial Health and the chance for some Culture output by constructing a Soma Distillery. They are very good third-tier Health Buildings if the Production can be spared. Construct these before Progenitor Gardens, even if there is access to both.

SURVEILLANCE WEB

- **Cost**: 235 Production
- **Maintenance**: N/A
- **Yield**: +5 City Hit Points, Maximum Covert Ops Intrigue for this city reduced by 2
- **Quest Reward**: Covert Agents need fewer successful operations to advance in rank or +10 City Hit Points from Surveillance Webs
- **Prerequisite**: Artificial Intelligence


FINISHED: SERVOMACHINERY
TURN: 377


15
CIDADELA
COVERT OPS
AT HEADQUARTERS
Switch Project
Waluyo
ASSIGN
ON ASSIGNMENT
Samoanna
Central
CHOOSE OPERATION
REASSIGN
Makal
Tiang
Nhiet
Halia
Mano
Siphon Energy
9 Turns
Steal Technology
EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
A UNIT NEEDS ORDERS

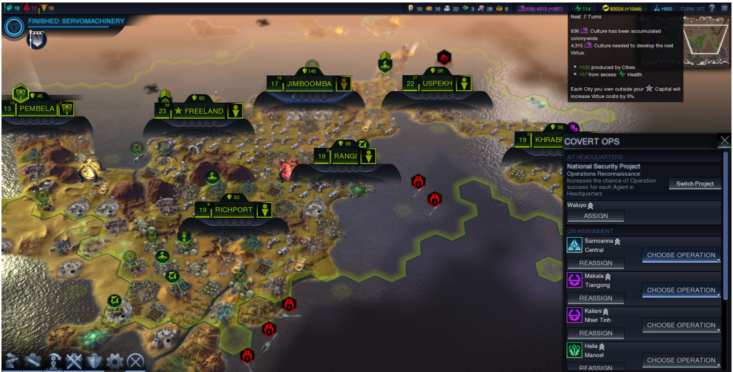
National Security Project
Operations Reconnaissance
Increases the chance of Operation success for each Agent in Headquarters

Difficulty: Very Easy
LVL 0
Difficulty: Easy
LVL 0
Steal 730 Energy from the city.
Difficulty: Easy
LVL 1
Difficulty: Moderate
LVL 2

Though superficially a defensive structure for the city, Surveillance Webs are much more important when used with reducing the Intrigue of a city when Covert Operations are being conducted. They protect the city from high-end Covert Operations. If a colony is having trouble with enemy Spies operating in a city and an Agent cannot be spared to work defensively, this Building is an immediate fix. Put these buildings into core cities. Adversaries are then forced to scout more, find more cities to work in, and build Intrigue again in those cities. Surveillance Webs should be built in every city, especially if there is issue with enemy Spies. Additionally, look at the strategy being used and re-evaluate for other ways of reducing Intrigue. Consider a change in routine and have a floating agent or two who moves between cities, reduces Intrigue, and tries to hunt down enemy Agents. Ignoring Intrigue can be a very bad idea!

TERRA VAULT

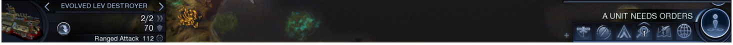
- **Cost**: 390 Production
- **Maintenance**: 1 Energy
- **Yield**: +15% Culture
- **Quest Reward**: +5% City Culture or +5% City Science from Terra Vaults
- **Prerequisite**: Social Dynamics, Level 7 in Purity


FINISHED: SERVOMACHINERY
TURN: 377
PEMBELA
FREELAND
JIMBOOMBA
USPEKH
RANGI
RICHPORT
KHRABR
COVERT OPS
AT HEADQUARTERS
Switch Project
Waluyo
ASSIGN
ON ASSIGNMENT
Samoanna
Central
Makala
Tiangong
Kailani
Nhiet Tinh
Halia
Manoel
CHOOSE OPERATION
REASSIGN

Next: 7 Turns
636 Culture has been accumulated colony-wide.
4,315 Culture needed to develop the next Virtue.
- +530 produced by Cities.
- +57 from excess Health.

Each City you own outside your Capital will increase Virtue costs by 5%.

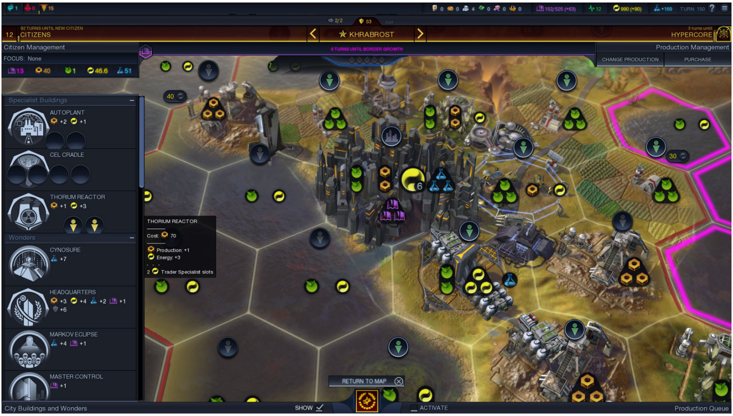
National Security Project
Operations Reconnaissance
Increases the chance of Operation success for each Agent in Headquarters


EVOLVED LEV DESTROYER
2/2
70
Ranged Attack 112
A UNIT NEEDS ORDERS

Terra Vaults are a third-tier Culture Building. They get the most out of extremely large cities that already have all of their Culture Buildings. They're even better off when Specialist Slot Artists are assigned to existing structures; build Domes and Terrascapes around the city to stack on even more Culture. The more base Culture acquired, the better this building becomes.

THORIUM REACTOR

- **Cost**: 105 Production
- **Maintenance**: N/A
- **Yield**: +3 Energy, (2) Specialist Slots (Trader)
- **Quest Reward**: +2 Energy or +1 Production from Thorium Reactors
- **Prerequisite**: Engineering

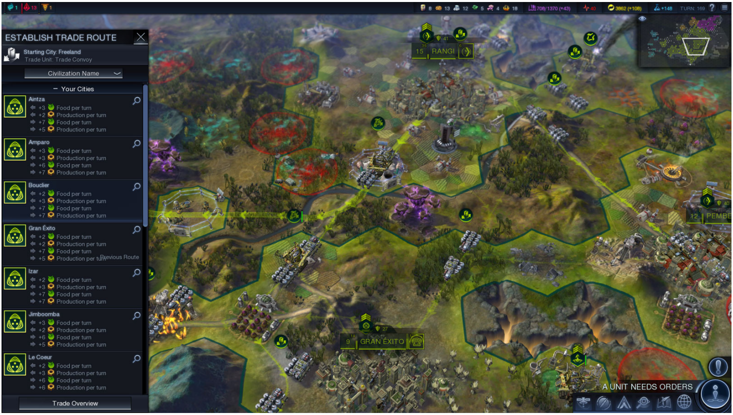

12 CITIZENS
92 TURNS UNTIL NEW CITIZEN
KHRABROST
HYPERCORE
3 turns until
Citizen Management
FOCUS: None
Production Management
CHANGE PRODUCTION
PURCHASE
6 TURNS UNTIL BORDER GROWTH
Specialist Buildings
AUTOPLANT
CEL CRADLE
THORIUM REACTOR
Wonders
CYNOSURE
HEADQUARTERS
MARKOV ECLIPSE
MASTER CONTROL
THORIUM REACTOR
Cost: 70
Production: +1
Energy: +3
2 Trader Specialist slots
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue
TURN: 150

Thorium Reactors are a first-tier economic Building. They give tremendous amounts of bang for the buck. Once improved by Quests, they have the potential for even more Energy per turn, letting them keep cities profitable in the early game and beyond. Every city should have a Thorium Reactor.

TRADE DEPOT

- **Cost**: 60 Production
- **Maintenance**: 1 Energy

- **Yield**: +1 Production, Allows (2) Trade Routes to be established from this city.
- **Quest Reward**: +1 Production or +1 Energy from Trade Depots
- **Prerequisite**: Pioneering



ESTABLISH TRADE ROUTE

Starting City: Freeland
Trade Unit: Trade Convoy

Civilization Name

− Your Cities

Aintza
← +3 Food per turn
← +2 Production per turn
→ +7 Food per turn
→ +5 Production per turn

Amparo
← +3 Food per turn
← +3 Production per turn
→ +6 Food per turn
→ +7 Production per turn

Bouclier
← +2 Food per turn
← +3 Production per turn
→ +7 Food per turn
→ +7 Production per turn

Gran Éxito
← +2 Food per turn
← +2 Production per turn
→ +7 Food per turn
→ +5 Production per turn
Previous Route

Izar
← +2 Food per turn
← +3 Production per turn
→ +7 Food per turn
→ +7 Production per turn

Jimboomba
← +3 Food per turn
← +2 Production per turn
→ +6 Food per turn
→ +5 Production per turn

Le Coeur
← +2 Food per turn
← +3 Production per turn
→ +6 Food per turn
→ +6 Production per turn

Trade Overview

TURN: 169
RANGI
GRAN ÉXITO
A UNIT NEEDS ORDERS

Trading is essential to city growth, Colony growth, and financial stability. This is a first-tier economic Building. Though Trade Convoys require additional construction, time, and micromanagement, the results are some of the best available throughout the game. Trade Routes offer the potential for Energy and Science internationally, or Food and Production locally. Station trading extends the options even further.

Trade is survival.

ULTRASONIC FENCE

- **Cost**: 120 Production
- **Maintenance**: 1 Energy
- **Yield**: Prevents Alien units from approaching within 2 tiles of this City
- **Quest Reward**: +1 Repel Range or Trade Units will not be attacked by Alien units
- **Prerequisite**: Ecology

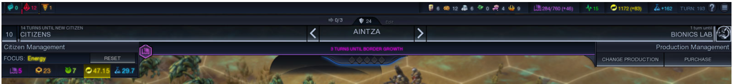
FINISHED: COMMUNICATIONS
Desert, Hill, Miasma
TURN: 169
KUZMA
DRAGOON
3/3
76
CHOOSE PRODUCTION

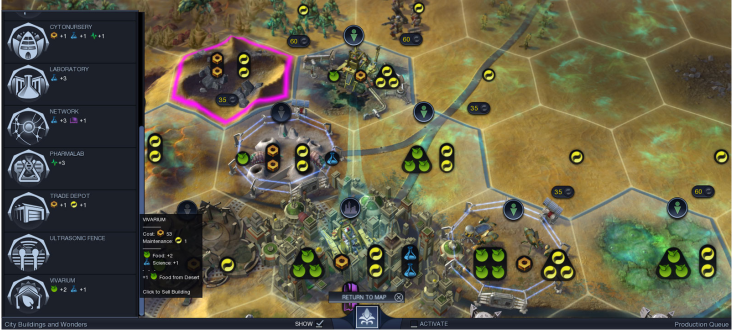
Ultrasonic Fences are a second-tier Building used for situational defense of a city. They can be useful in the early game for giving some breathing room to cities. They are best used by Colonies that are not hunting the Alien units. The Fences allow cities to grow without the constant temptation to attack nearby Aliens (or the threat of losing workers to them).

Ultrasonic Fences also give the option through a quest decision to keep Trade Convoys safe from Alien attacks by modifying the Ultrasonic Technology. This is a massive boost when used for international Trade Routes and Trade Routes with Stations. Convoys cannot always be protected without the extended effects of this Building from the Quest choice. This quest option takes the guesswork and pain out of the equation.

VIVARIUM

- **Cost**: 80 Production
- **Maintenance**: 1 Energy
- **Yield**: +2 Food, +1 Food from Deserts
- **Quest Reward**: +1 Science or +1 Food from Vivariums
- **Prerequisite**: Ecology


TURN: 193
14 TURNS UNTIL NEW CITIZEN
10 CITIZENS
AINTZA
3 TURNS UNTIL BORDER GROWTH
1 turn until
BIONICS LAB
Citizen Management
FOCUS: Energy
RESET
Production Management
CHANGE PRODUCTION
PURCHASE


CYTONURSERY +1 +1 +1
LABORATORY +3
NETWORK +3 +1
PHARMALAB +3
TRADE DEPOT +1 +1
ULTRASONIC FENCE
VIVARIUM +2 +1
VIVARIUM
Cost: 53
Maintenance: 1
Food: +2
Science: +1
+1 Food from Desert
Click to Sell Building
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

Vivariums are first-tier Growth Buildings. They are great for every city. Get the most out of them by Building them as soon as the Production time can be spared. If a city is near Desert tiles, Vivariums go from good to required. Make them a priority.

WATER REFINERY

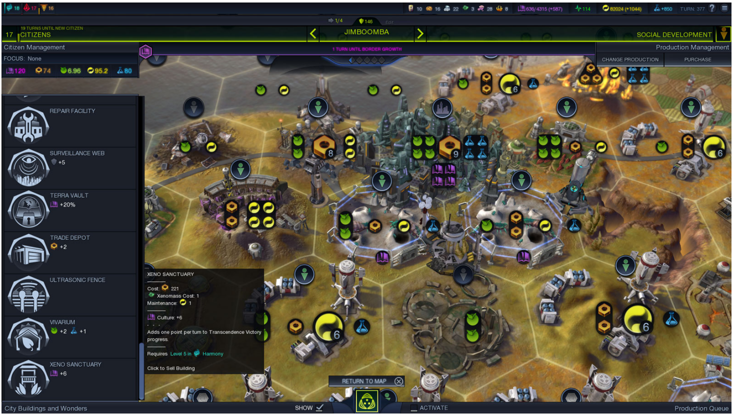
- **Cost**: 150 Production
- **Maintenance**: 1 Energy
- **Yield**: +1 Food and +1 Production from Water tiles
- **Quest Reward**: +1 Food from Water Refineries or Free Maintenance for Water Refineries
- **Prerequisite**: Biochemistry, Can only be constructed in Coastal cities

MOBILE LEV (2)
TURN: 192
Coast
LE COEUR
Quest Failed
PLEASE WAIT
Processing Turn For Slavic Federation

Water Refineries are amazing for any city that is located along a coastline. Construct them as a first-tier Building when next to several Ocean tiles, or as a second-tier Building if only one or two Ocean tiles are available.

XENO SANCTUARY

- **Cost**: 330 Production, 1 Xenomass
- **Maintenance**: 1 Energy
- **Yield**: +4 Culture, Adds 1 point per turn to Transcendence Victory progress
- **Quest Reward**: +2 Culture or +2 Food from Xeno Sanctuaries
- **Prerequisite**: Alien Ethics, Xenomass, Level 5 in Harmony


17 CITIZENS
19 TURNS UNTIL NEW CITIZEN
Citizen Management
FOCUS: None
JIMBOOMBA
1 TURN UNTIL BORDER GROWTH
SOCIAL DEVELOPMENT
Production Management
CHANGE PRODUCTION
PURCHASE
TURN: 377
REPAIR FACILITY
SURVEILLANCE WEB +5
TERRA VAULT +20%
TRADE DEPOT +2
ULTRASONIC FENCE
VIVARIUM +2 +1
XENO SANCTUARY +6
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

XENO SANCTUARY

Cost: 221

Xenomass Cost: 1

Maintenance: 1

Culture: +6

Adds one point per turn to Transcendence Victory progress.

Requires Level 5 in Harmony

Click to Sell Building

Harmony players need this building for its Transcendence bonus. These buildings combine nicely with Mind Stems as a way to win the game without having a single target to go after. Distribute Xeno Sanctuaries and Mind Stems throughout the Colony, and force enemy Sponsors to fight aggressively for any hope of thwarting victory.

Non-Harmony players use Xeno Sanctuaries as a third-tier Culture Building, but often access to them is so late that it is not a major concern.

XENOFUEL PLANT

- **Cost**: 190 Production
- **Maintenance**: N/A
- **Yield**: +3 Energy, +1 Energy from Xenomass, 2 Specialist Slots (Trader)

- **Quest Reward**: Gain 1,000 Energy Immediately or +3 Energy and +2 Production from Xenomass Wells
- **Prerequisite**: Alien Sciences, Requires a workable, improved source of Xenomass, Level 2 in Harmony

FINISHED: BIOCHEMISTRY
RANGI
Coast
SHREDDER
0/2
18
Ranged Attack 66
A UNIT NEEDS ORDERS
TURN: 327

Xenofuel Plants are an excellent second-tier economic Building. Their bonus Trader slots allow a city to gain a pile of buying power when strapped for Energy.

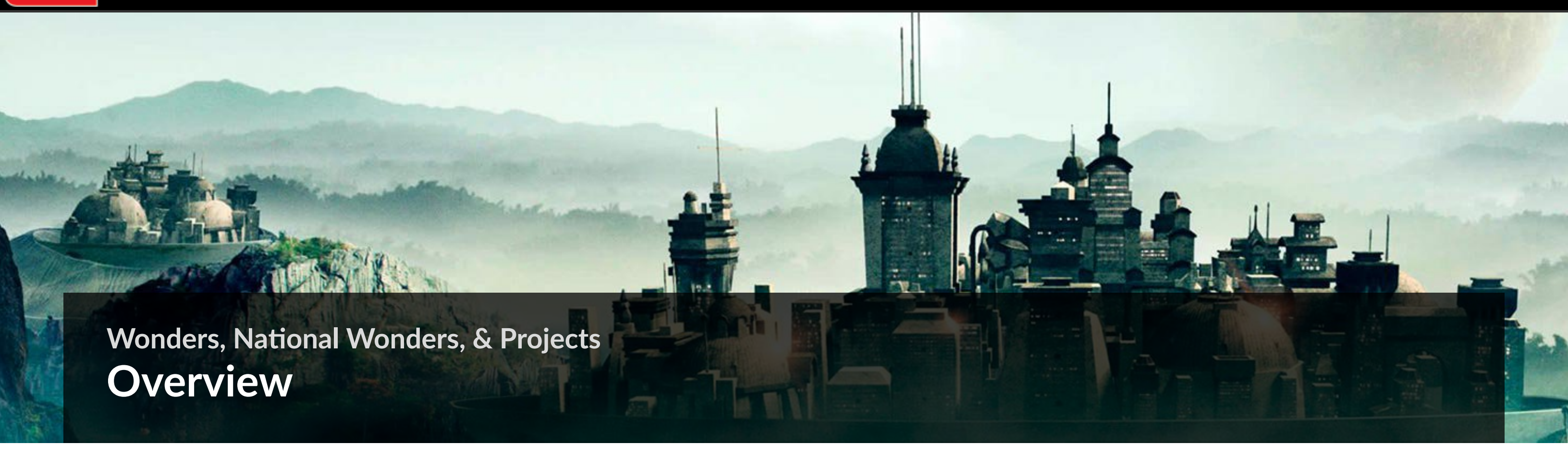
XENONURSERY

- **Cost**: 180 Production
- **Maintenance**: 1 Energy
- **Yield**: +10% Science, +1 Science from Xenomass, 1 Specialist Slot (Scientist)
- **Quest Reward**: Immediately gain +450 Science or +5 Xenomass resources
- **Prerequisite**: Alien Sciences, Requires a workable, improved source of Xenomass, Level 2 in Harmony

SOCIAL DYNAMICS (3)
Xenomass, Xenomass Well
Plains, River, Miasma
Maintenance : 2
TURN: 190

10
MAEVA
DRAGOON
3/3
76
CHOOSE PRODUCTION

Though fairly cheap to produce, Xenonurseries are situational second-tier Science Buildings. They don't give major bonuses until a city is well developed, unless a larger supply of Xenomass is available. If so, that is lucky as heck and can put the Xenonursery higher on the build queue than it would be normally.



Wonders, National Wonders, & Projects

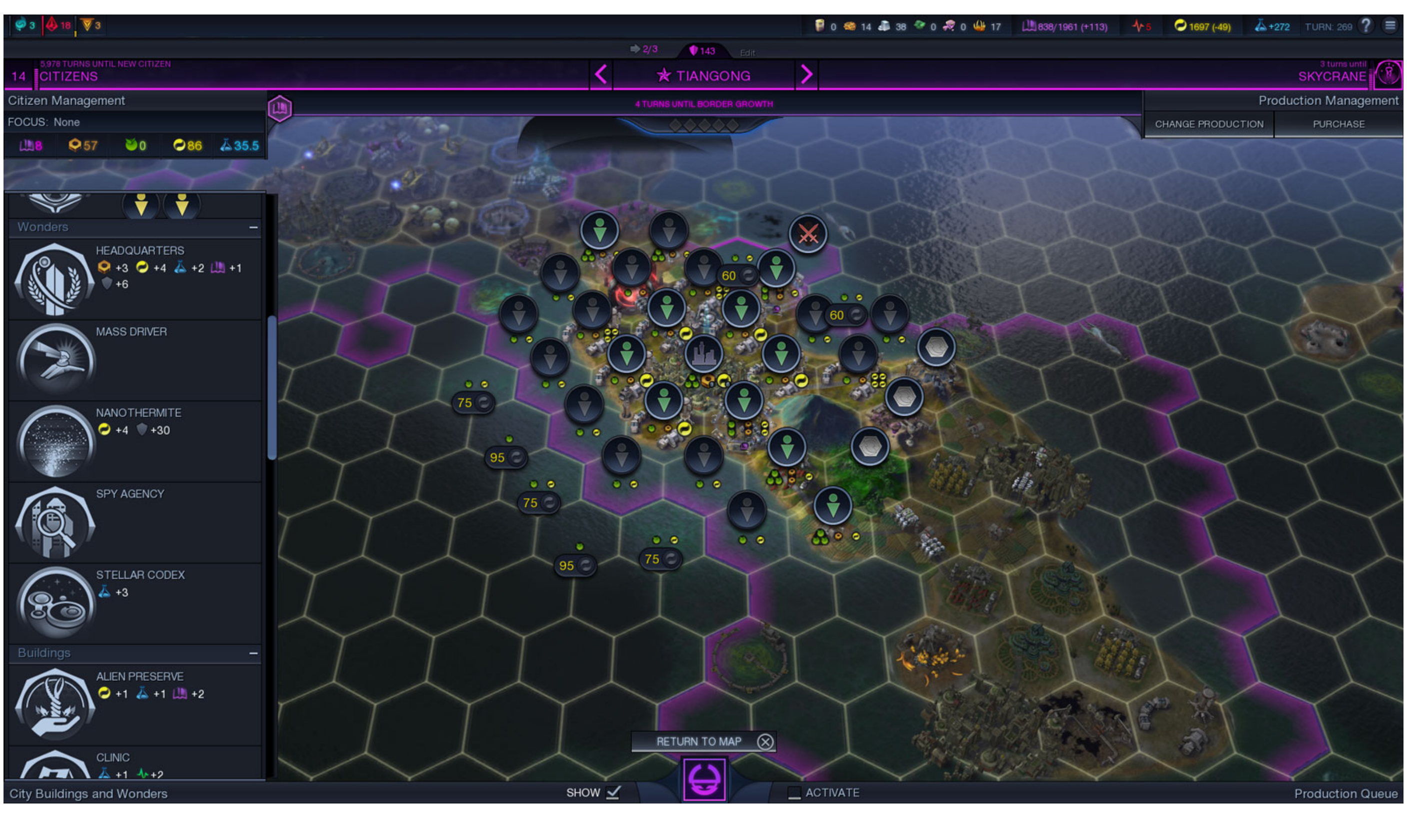
Overview

Wonders and projects are massive undertakings that dramatically influence your civilization. These exciting tasks provide bonuses that help you overpower your enemies and complete the game. This chapter lets you know the risks and rewards for these major game elements.

TYPES OF WONDERS AND PROJECTS

Great wonders offer the biggest bonuses, the highest construction costs, and the most risk of all these undertakings. There can only be one great wonder of each specific type in the entire world. That means that the first nation to construct a great wonder is the only one that gets to benefit from it, unless another nation takes over their city with the wonder.

Great wonders provide a major boost to your in-game points, and they have a variety of effects on your civilization's statistics. Figure out which great wonders you're mostly likely to succeed in building, and go after those in your cities with the highest Production.



If you're slow to research Technology that grants access to a great wonder, you're unlikely to finish constructing that wonder before your opponents. Figure out the wonders you like the most during the early games of *Civilization: Beyond Earth*, and note the Technologies that you need for these wonders. Hurry to get those techs sooner in future playthroughs, and rush to get your best wonders done before other people even have a chance to compete with you.

When someone else completes a great wonder before your city can finish it, the Production you've invested is converted into Energy. That's nice and all, but it's not a great conversion. You don't want to lose the construction race, so think carefully before you begin each great wonder.

DIPLOMACY
CIVILIZATION
SCORE
764
988
DRAGOON
CITY CAN ATTACK

National wonders are a different animal altogether, as you aren't competing with other people to get these done. Every nation can have a single version of each national wonder; you just need to decide which city to put your national wonders in. For now, there aren't many national wonders. You start with Headquarters in your capital city. The Spy Agency and Culper Lodge develop as you make progress through the tech web, and they give you access to spies and covert operations. The Spy Agency doesn't even take long to construct, so put it anywhere that can get the building up and running quickly.

Projects are like national wonders that focus on victory conditions. Work on these to advance your nation toward one type of victory or another. All civilizations can work on their own versions of these, so you can't cut anyone else off from a victory by beating them to project completion. Instead, you must get the entire victory condition done before anyone else does.

TRADE CONVOY
CHOOSE PRODUCTION

WORKING ON A PROJECT

In addition to high Production costs, projects occupy a plot within the home city's radius. Selecting this plot is a secondary step of choosing the project. Make sure to use a tile that isn't well developed or important to your city (anything on that tile gets destroyed when you start the project there). You can't get any resources from a project tile; even the base value of the terrain won't count for generating resources.

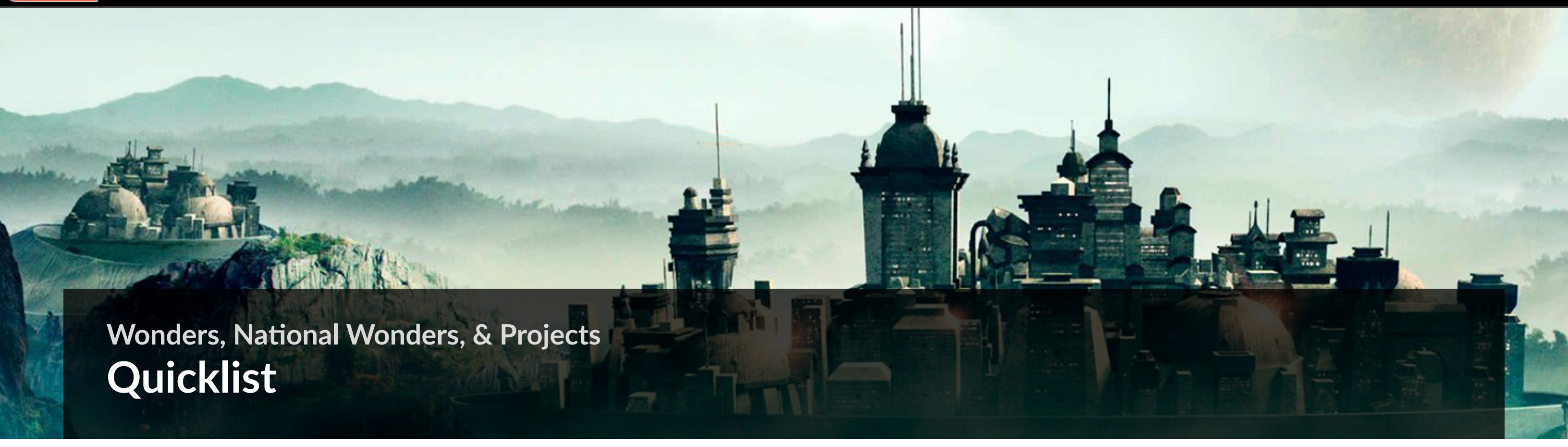
You can cancel a project and revert your tile back to its base version, but at that point, you've wasted quite a bit of work on the tile and destroyed its improvements. You should only do this as a last resort if you realize that a tile is unfit to get the project done compared with another one of your cities. This could be due to defensive concerns, lack of Production, or some other unforeseen variable.

PLEASE WAIT

It's possible for enemies to occupy your project tile and pillage it. This removes your work on the project, possibly wasting many turns of progress. When you complete a project, the area becomes harder to destroy. Opponents must attack it directly at that point instead of pillaging the tile. Defend your project as well as possible so that you can continue toward victory!

Consider building your projects on hills or other rough terrain so that your defenders gain bonuses while protecting the project from enemy forces. Leaving projects out on open ground is a good way to encourage sieging adversaries to go after your projects aggressively.

TRADE CONVOY

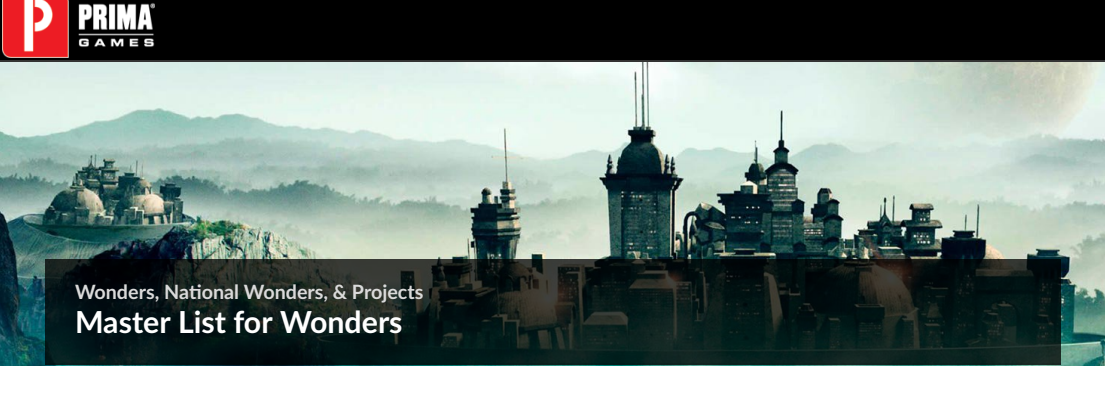


Wonders, National Wonders, & Projects

Quicklist

Wonders Quicklist

Building	Production Cost	Required Technology	Yield	Comments
Ansible	1500	Exotic Matter	Energy +4, Science +4	Constructing city gains a feedsite hub
Archimedes Lever	1250	Seismic Induction	Culture +1, City Strength +50, Production +4	N/A
Armasail	1250	Synergetics	City Hit Points +100, Production +4	N/A
Beacon	1650	N/A	Contact victory	Project, part of Contact victory
Bytegeist	1250	Swarm Intelligence	+4 Culture, +2 Science	-15% Culture cost for virtues
Crawler	1250	Mechatronics	+1 Culture	+25% Production for wonder construction
Culper Lodge	Free	N/A	All spies become special agents	National wonder
Cynosure	1550	Synthetic Thought	+7 Science	Military units can gain an additional Veterancy level
Daedalus Ladder	1550	Augmentation	+3 Health, +2 Food	N/A
Decode Signal	850	Transcendental Equation	Allows Beacon project	Project, part of Contact victory
Deep Memory	1450	Human Conservation	+7 Culture	Two free virtues
Drone Sphere	650	Swarm Robotics	+2 Science	Constructing city gains a surveillance web, +10 Healing for military units in friendly territory
Ectogenesis Pod	300	Genetic Design	+3 Food, +3 Production	Farms produce +1 Food
Emancipation Gate	1750	Hypercomputing	Emancipation victory	Project, part of Emancipation victory
Exodus Gate	1750	Nanotechnology	Promised Land victory	Project, part of Promised Land victory
Gene Vault	205	Genetic Mapping	+1 Culture, +4 Food	+10% Growth for your cities
Headquarters	Free	None	+1 Culture, City Strength +6, +4 Energy, +2 Science, +3 Production	National wonder, designates your capital
Holon Chamber	1050	Hyperconductors	+5 Science	N/A
Human Hive	1150	Euthenics	+3 Production	Maximum covert ops Intrigue reduced by 4 in constructing city
Markov Eclipse	1050	Artificial Intelligence	+1 Culture, +4 Science	Military units gain Experience 50% faster
Mass Driver	950	Ballistic LEV	+25% City Strength, +5 City Orbital Strike Range	N/A
Master Control	225	Autonomous Systems	+1 Culture	Free network in constructing city, +1 Movement for workers
Memetwork	700	Orbital Networks	+2 Health, +4 Culture, +25% Culture	N/A
Mind Flower	1900	None	Transcendence victory	Project, part of Transcendence victory
Nanothermite	1050	Nanotechnology	City Strength +30, +4 Energy	N/A
New Terran Myth	750	Human Idealism	+4 Culture	N/A
Panopticon	250	Defense Grid	+1 Culture	+1 Sight for your military units
Precog Project	450	Collaborative Thought	+2 Health, +2 Culture	+15% Combat Strength vs. military units in friendly territory
Promethean	950	Transgenics	+4 Health, +2 Culture	1 free virtue
Quantum Computer	1050	Field Theory	+5 Science	1 free Technology
Resurrection Device	1350	Artificial Evolution	+8 Health	N/A
Spy Agency	200	Computing	Adds 3 spies	National wonder
Stellar Codex	225	Ballistics	+3 Science	+10% Production for orbital units, constructing city gains +4 Orbital Coverage
Tectonic Anvil	1550	Metamaterials	+9 Production	N/A
Transcendental Equation	450	Transcendental Math	Contact victory	Project, part of Contact victory
Xenodrome	750	Alien Ethics	+4 Culture	Constructing city gains a free Xeno Sanctuary
Xenomalleum	1050	Bioengineering	+7 Energy	+2 Energy from generators
Xenonova	1150	Alien Materials	+2 Health, +7 Food	N/A

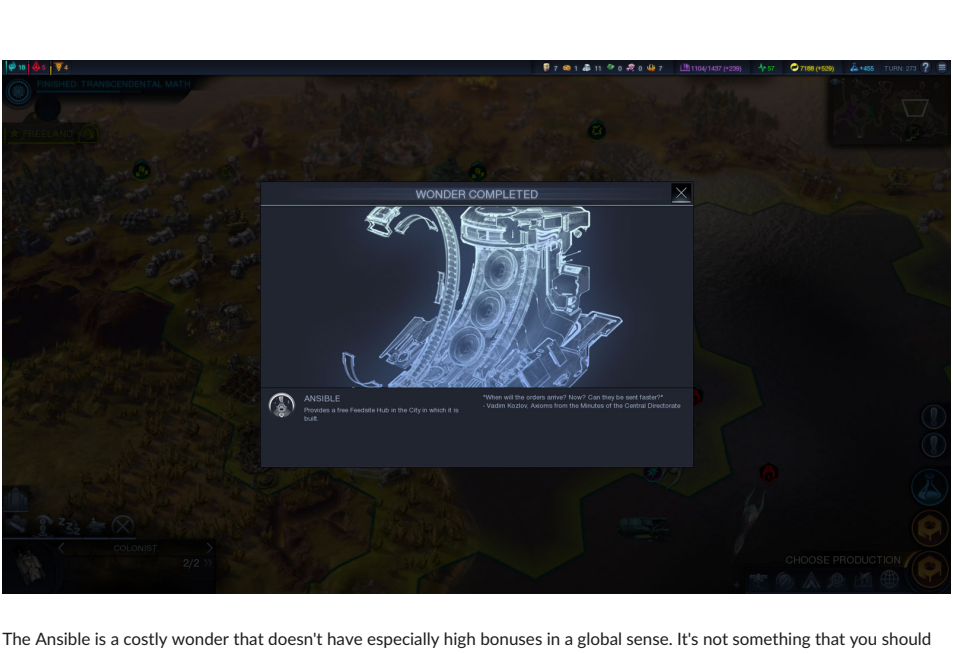


Wonders, National Wonders, & Projects

Master List for Wonders

△ ANSIBLE

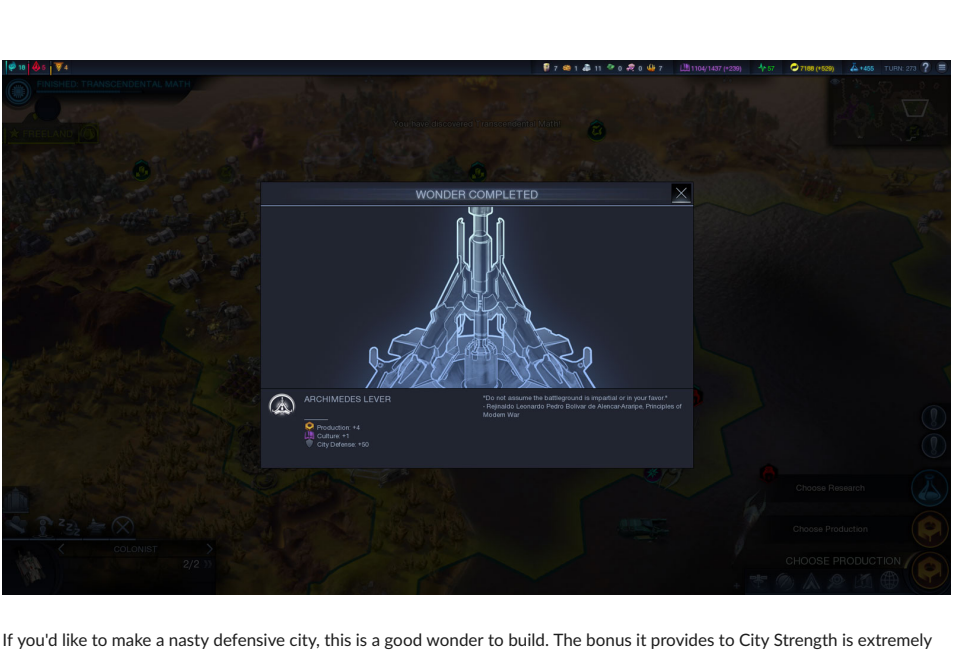
- **Cost**: 1500 Production
- **Yield**: Energy +4, Science +4, free feedsite hub
- **Prerequisite**: Exotic Matter (Tech)



The Ansible is a costly wonder that doesn't have especially high bonuses in a global sense. It's not something that you should construct without thinking about its location. You need to put this in a city that is already going to be very high on Energy and Science. That way, later-game buildings can magnify the decent base bonuses to these resources.

△ ARCHIMEDES LEVER

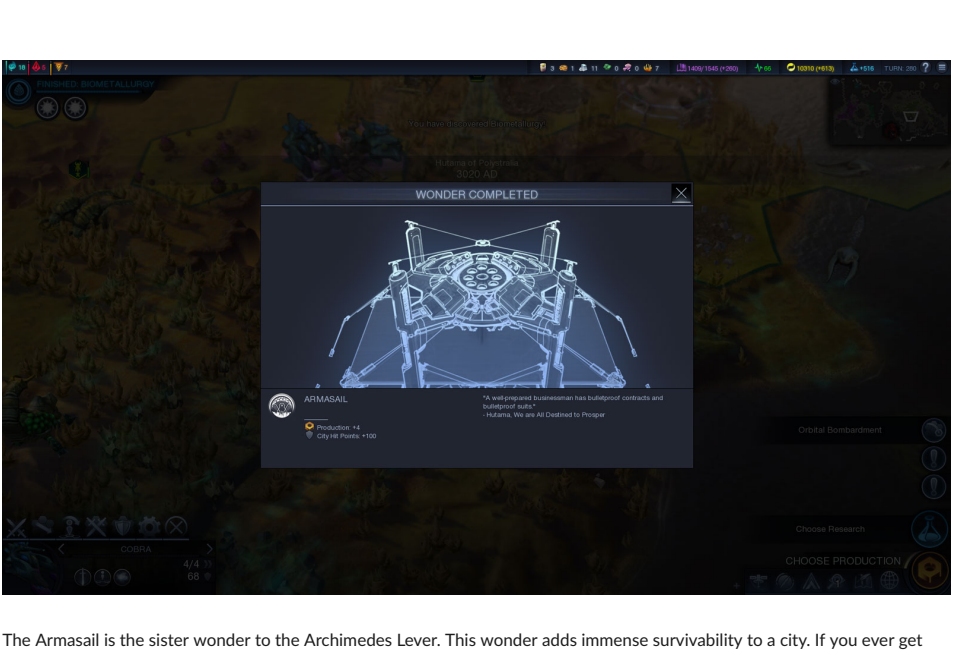
- **Cost**: 1250 Production
- **Yield**: Culture +1, City Combat Strength +50, Production +4
- **Prerequisite**: Seismic Induction (Tech), Geothermal (Resource)



If you'd like to make a nasty defensive city, this is a good wonder to build. The bonus it provides to City Strength is extremely high, especially if combined with normal defensive buildings. Look into this if you have a city that is in a critical chokepoint on the map. Make sure that your enemies go through hell if they ever try to siege it.

△ ARMASAIL

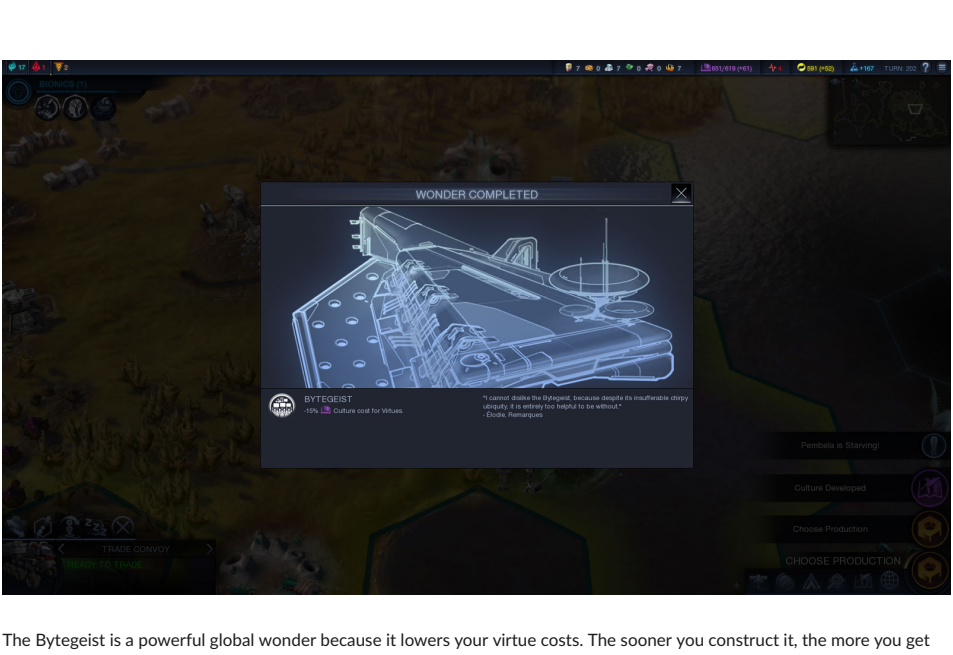
- **Cost**: 1250 Production
- **Yield**: City Hit Points +100, Production +4
- **Prerequisite**: Synergetics (Tech)



The Armasail is the sister wonder to the Archimedes Lever. This wonder adds immense survivability to a city. If you ever get the chance to put both of these into the same city, you end up with a place that is almost invulnerable. Provide a worthwhile ranged unit to fire out from there, and use terrain to keep people from easily going around it. So nice.

△ BYTEGEIST

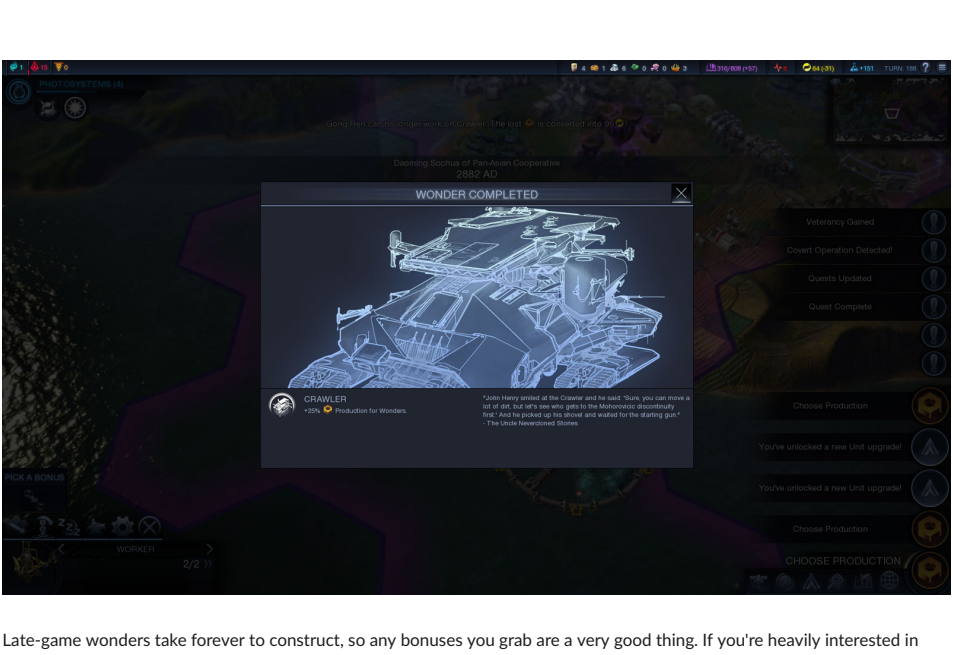
- **Cost**: 1250 Production
- **Yield**: +4 Culture, +2 Science, -15% Culture cost for virtues
- **Prerequisite**: Swarm Intelligence (Tech)



The Bytegeist is a powerful global wonder because it lowers your virtue costs. The sooner you construct it, the more you get out of it for securing late-game virtues. Swarm Intelligence is a leaf in the second circle of Research, so you can't rush it too easily. However, someone who makes this a priority and also takes Knowledge virtues can do wonderful things with their civilization. They get fast virtues and can expend well without taking big hits to their Science or Culture efficiency (because of the Knowledge bonuses).

△ CRAWLER

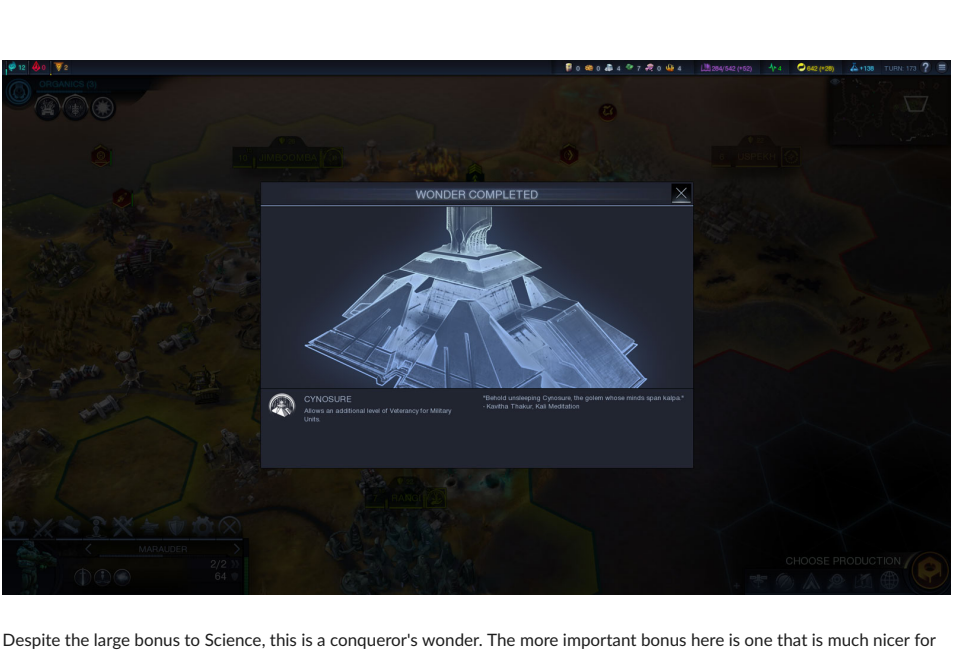
- **Cost**: 1250 Production
- **Yield**: +1 Culture, +25% Production for wonders
- **Prerequisite**: Mechatronics (Tech)



Late-game wonders take forever to construct, so any bonuses you grab are a very good thing. If you're heavily interested in wonder building, you must ensure that you get this before your rivals. If the PAC gets it and you're not playing them, you can kiss multiple additional wonders goodbye.

△ CYNOSURE

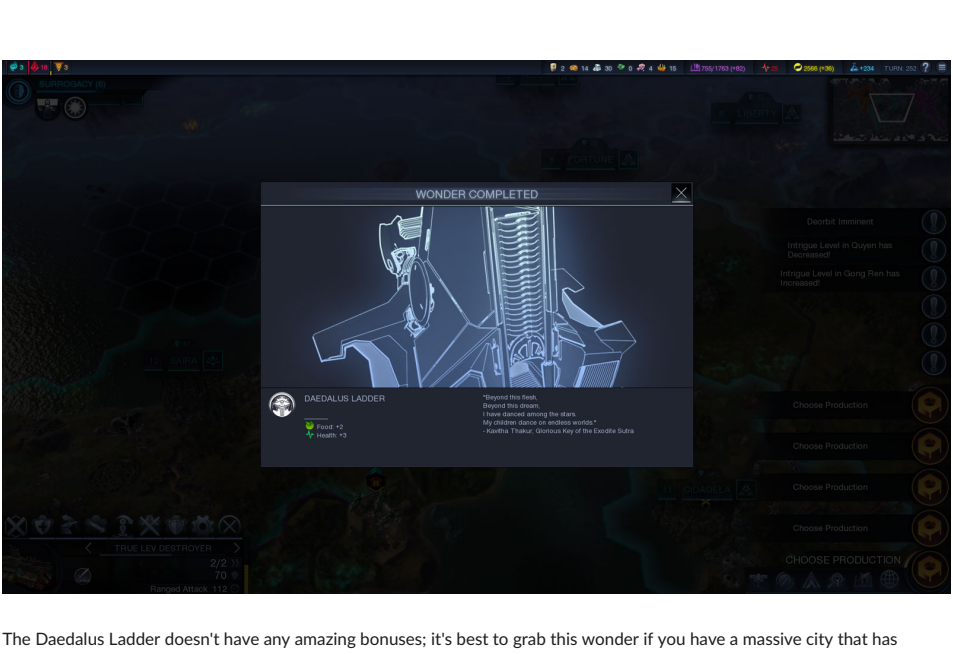
- **Cost**: 1550 Production
- **Yield**: +7 Science, allows 1 additional level of Veterancy
- **Prerequisite**: Synthetic Thought (Tech)



Despite the large bonus to Science, this is a conqueror's wonder. The more important bonus here is one that is much nicer for militant players while only defensively useful to anyone else. Make sure that you have a good range of units in the field before completing the Cynosure. It upgrades your existing military immediately, though it does not upgrade units that are created after the construction of this wonder.

△ DAEDALUS LADDER

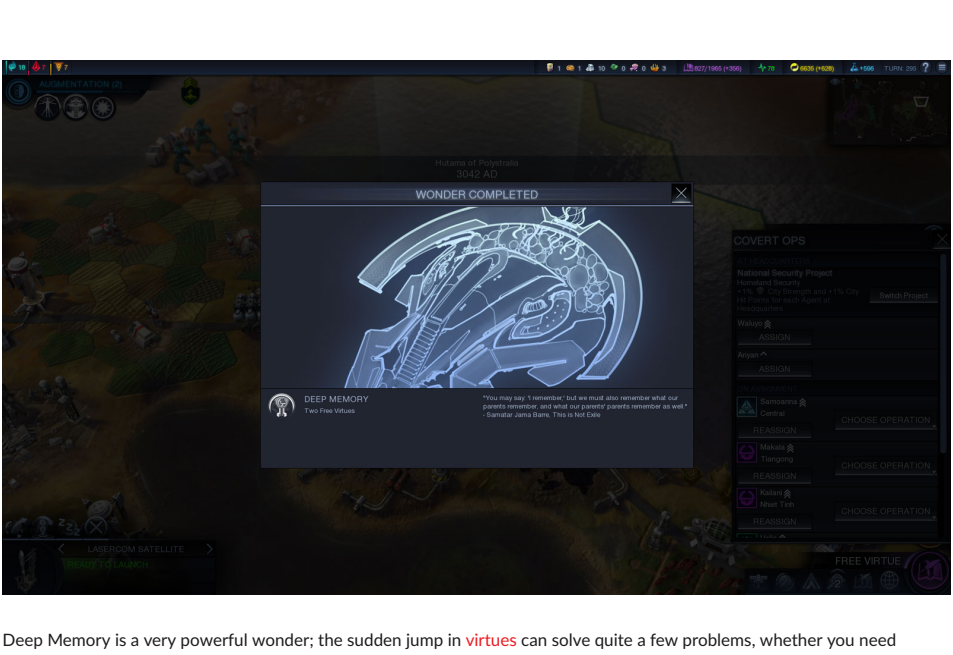
- **Cost**: 1550 Production
- **Yield**: +3 Health, +2 Food
- **Prerequisite**: Augmentation (Tech), Geothermal (Resource)



The Daedalus Ladder doesn't have any amazing bonuses; it's best to grab this wonder if you have a massive city that has completed its building construction period (at least for the moment). If you're still working on major construction, let this one go. It's not a game changer, and you can finish multiple late-game buildings in the same amount of time.

△ DEEP MEMORY

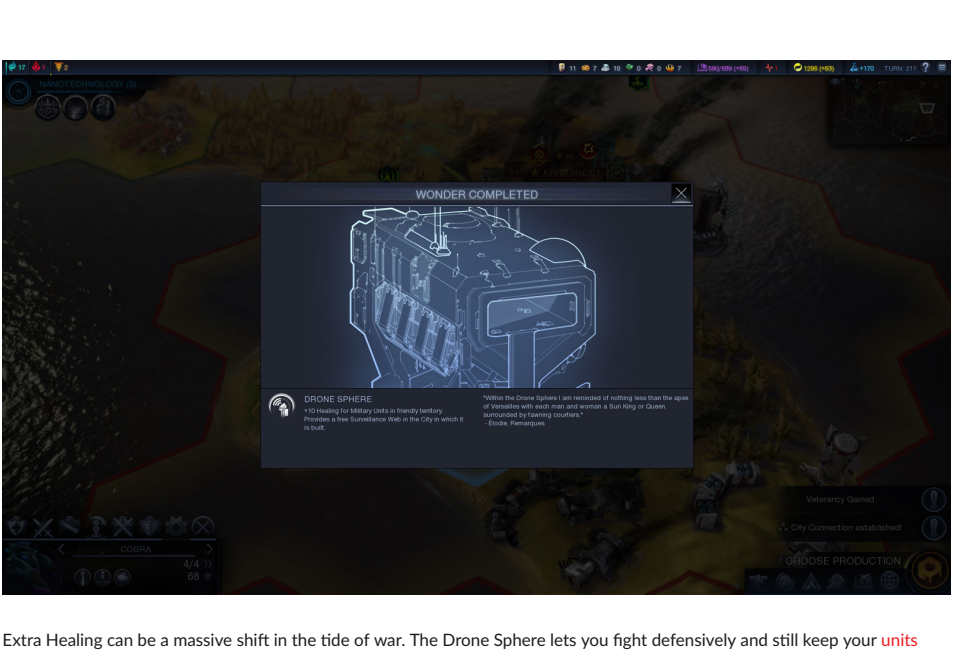
- **Cost**: 1450 Production
- **Yield**: +7 Culture, gain 2 free virtues
- **Prerequisite**: Human Conservation (Tech)



Deep Memory is a very powerful wonder; the sudden jump in virtues can solve quite a few problems, whether you need military bonuses, better Health, or whatever. This is a great thing to have no matter what style of play you're using, and denying those virtues to other players is a smart move, too.

△ DRONE SPHERE

- **Cost**: 650 Production
- **Yield**: +2 Science, free surveillance web, +10 Healing for military units in friendly territory
- **Prerequisite**: Swarm Robotics (Tech)

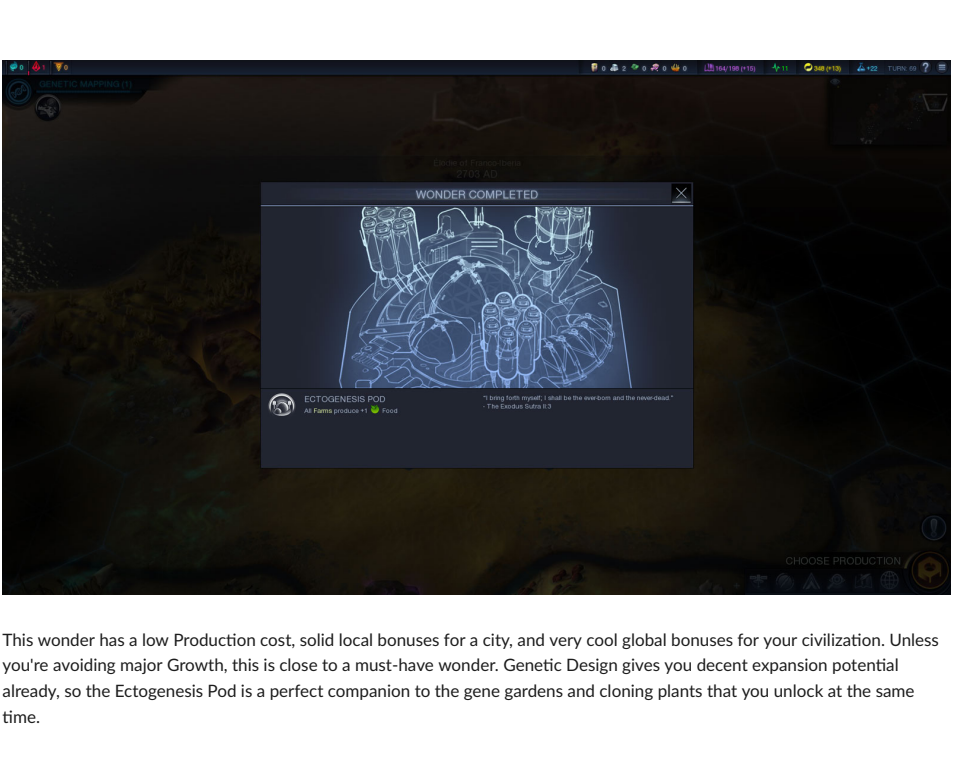


Extra Healing can be a massive shift in the tide of war. The Drone Sphere lets you fight defensively and still keep your units topped off on Health. Faster Healing means that you can rotate people out of the front, heal, and get back in there that much sooner. You end up with more veterans and a more effective force, if you're careful.

Even on offense, this has some value. Once you've taken an enemy city, you extend your territory. That's the exact time when you need more Healing; your people are tired and beaten up from the siege. With the Drone Sphere in place, you won't need as long to get everyone ready for the next attack.

△ ECTOGENESIS POD

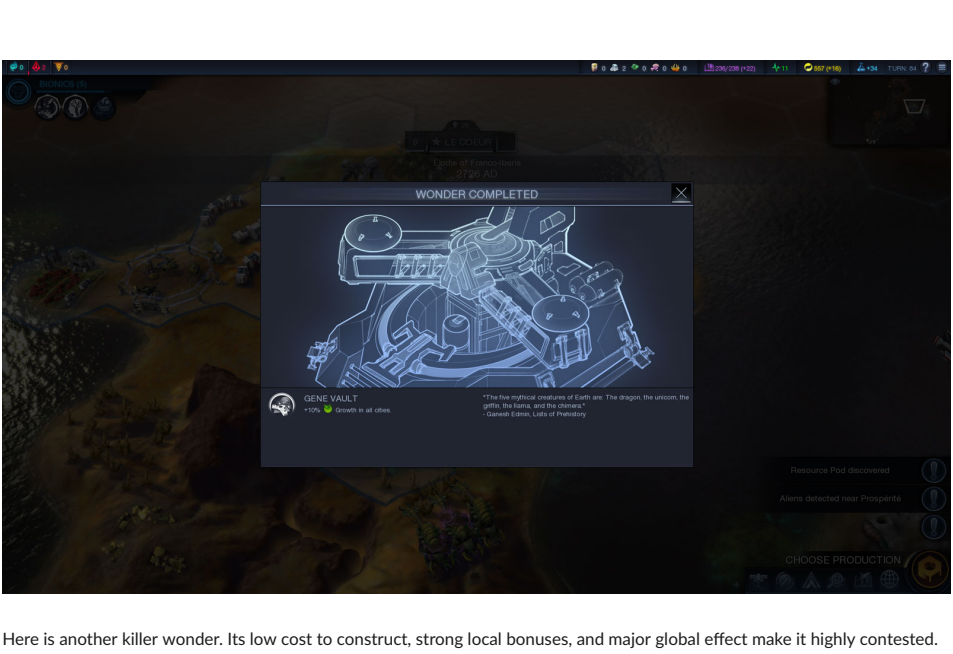
- **Cost**: 300 Production
- **Yield**: +3 Food, +3 Production, your farms produce +1 Food
- **Prerequisite**: Genetic Design (Tech)



This wonder has a low Production cost, solid local bonuses for a city, and very cool global bonuses for your civilization. Unless you're avoiding major Growth, this is close to a must-have wonder. Genetic Design gives you decent expansion potential already, so the Ectogenesis Pod is a perfect companion to the gene gardens and cloning plants that you unlock at the same time.

△ GENE VAULT

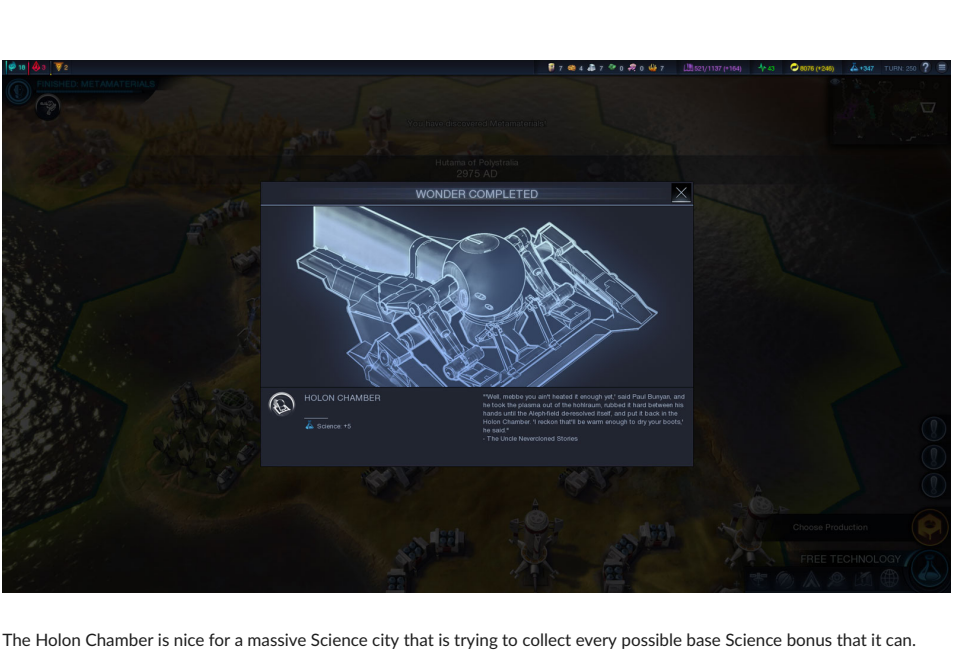
- **Cost**: 205 Production
- **Yield**: +1 Culture, +4 Food, +10% Growth in your cities
- **Prerequisite**: Genetic Mapping (Tech)



Here is another killer wonder. Its low cost to construct, strong local bonuses, and major global effect make it highly contested. Expect Purity players to be especially fast to grab this, as Genetic Mapping gives you bonus Purity Experience.

△ HOLON CHAMBER

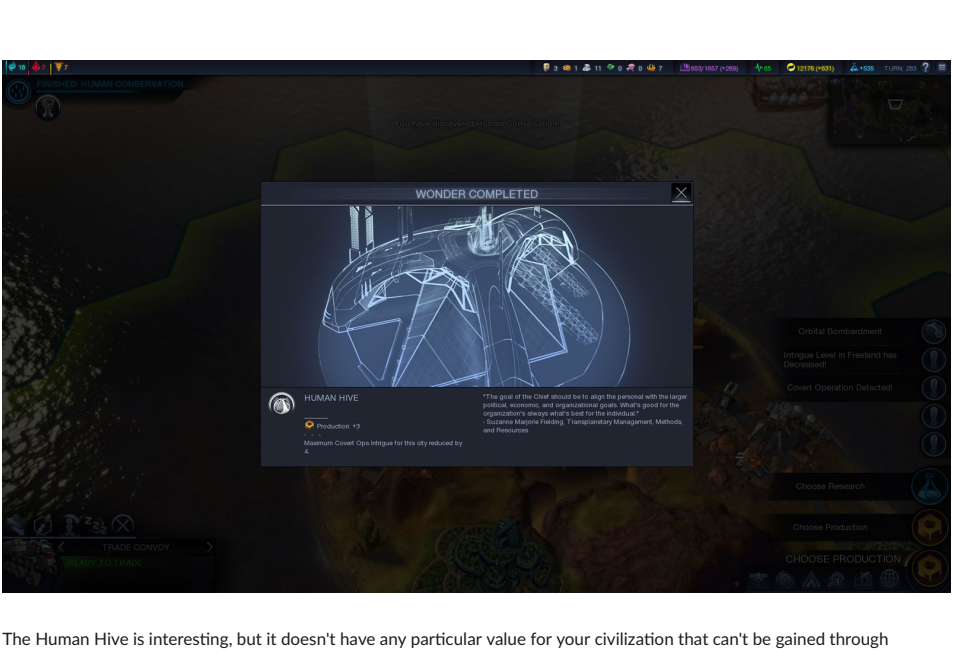
- **Cost**: 1050 Production
- **Yield**: +5 Science
- **Prerequisite**: Hyperconductors (Tech)



The Holon Chamber is nice for a massive Science city that is trying to collect every possible base Science bonus that it can. Otherwise, you're not looking at much return on your investment. Don't build this anywhere that isn't willing to dedicate to all tiers of Science buildings (and maybe some academies on your tiles nearby).

△ HUMAN HIVE

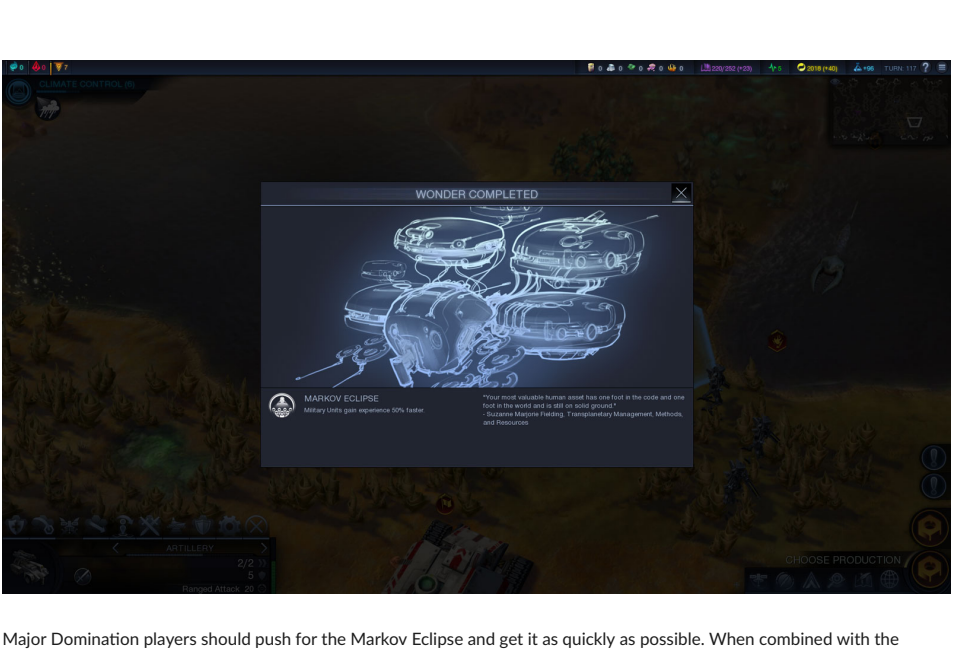
- **Cost**: 1150 Production
- **Yield**: +3 Production, maximum Intrigue reduced by 4 for this city
- **Prerequisite**: Euthenics (Tech)



The Human Hive is interesting, but it doesn't have any particular value for your civilization that can't be gained through surveillance webs. Any Intrigue below 4 is mostly benign for your cities, so limiting Intrigue to 1 instead of 3 isn't that critical, especially because it's for a single city.

△ MARKOV ECLIPSE

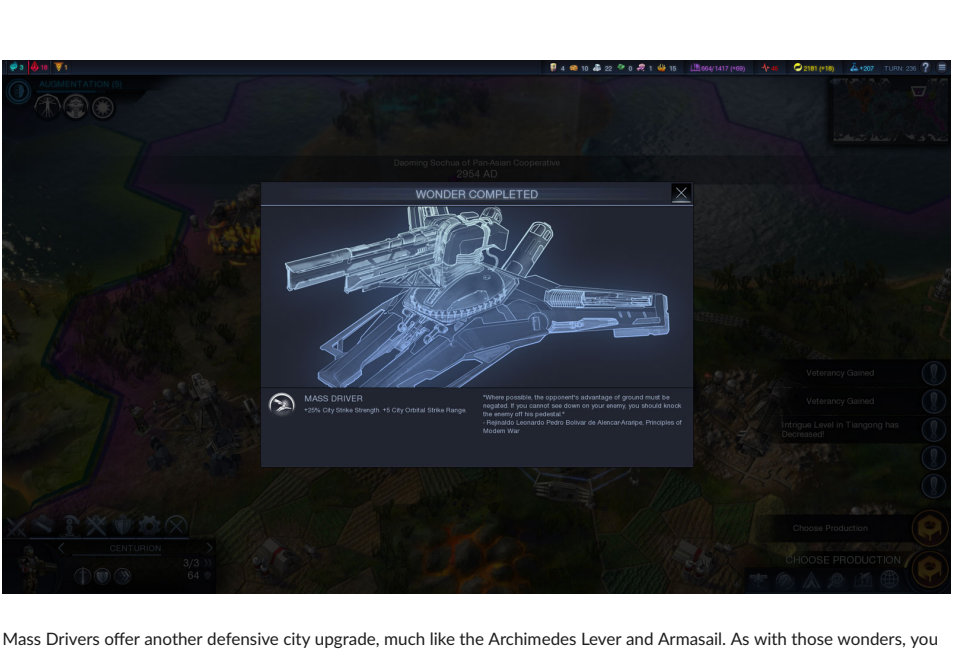
- **Cost**: 1050 Production
- **Yield**: +1 Culture, +4 Science, military units gain Experience 50% faster
- **Prerequisite**: Artificial Intelligence (Tech)



Major Domination players should push for the Markov Eclipse and get it as quickly as possible. When combined with the appropriate Might virtues, you get a civilization with very dangerous military units.

△ MASS DRIVER

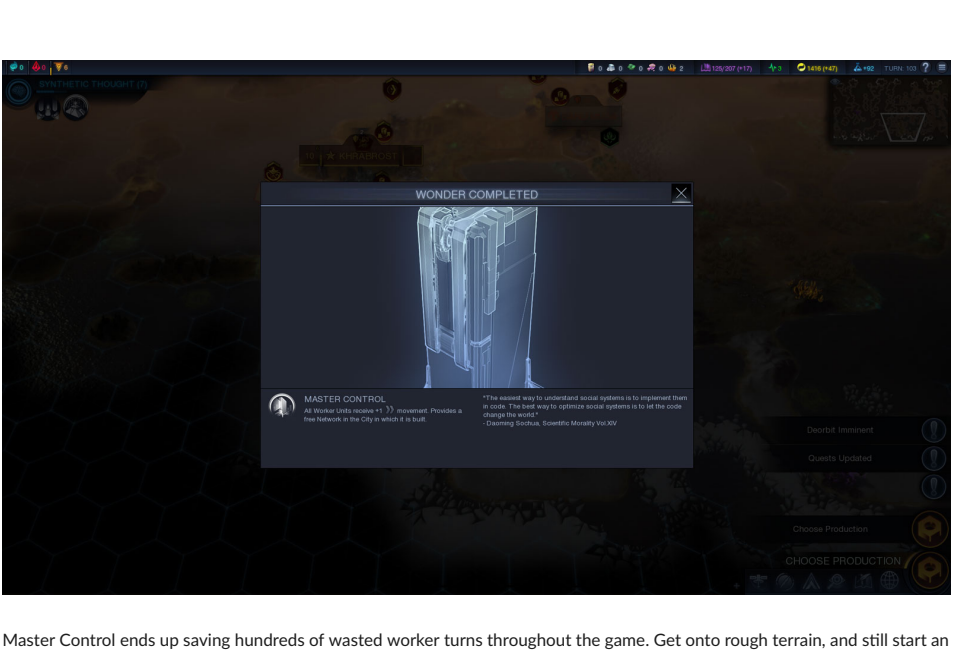
- **Cost**: 950 Production
- **Yield**: +25% City Strike Strength, +5 City Orbital Strike Range
- **Prerequisite**: Ballistic LEV (Tech)



Mass Drivers offer another defensive city upgrade, much like the Archimedes Lever and Armasail. As with those wonders, you should look for a city in your nation that has a natural chokepoint to prevent intruders from getting around it. Construct the Mass Driver there, and blast anything that gets close during a time of war. Don't neglect normal defensive buildings and military units; they still provide way more power than the Mass Driver would on its own.

△ MASTER CONTROL

- **Cost**: 225 Production
- **Yield**: +1 Culture, workers gain +1 Movement, provides a network in that city
- **Prerequisite**: Autonomous Systems (Tech)

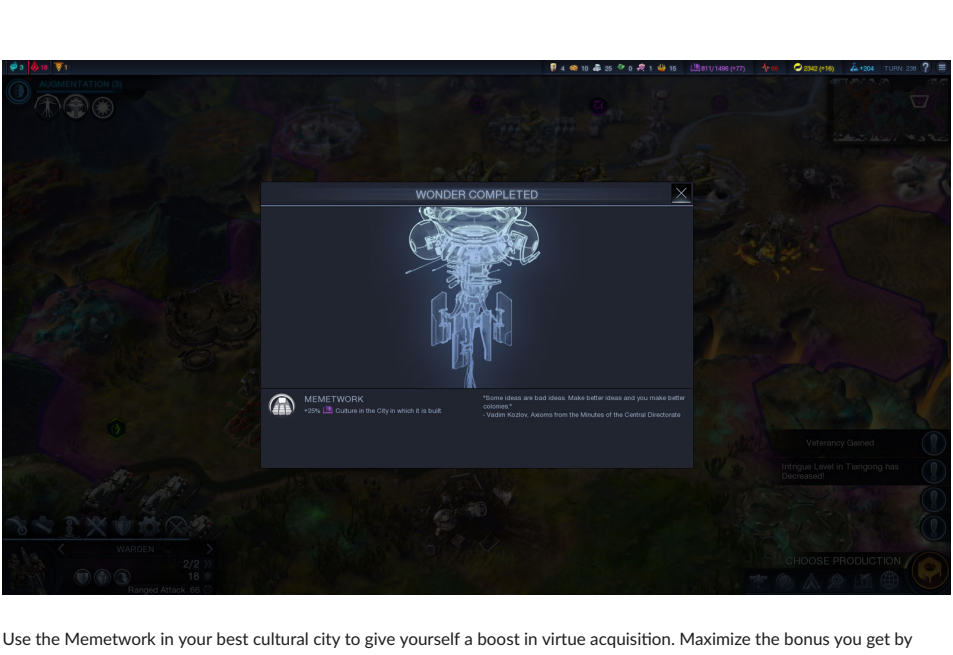


Master Control ends up saving hundreds of wasted worker turns throughout the game. Get onto rough terrain, and still start an improvement on the same turn. Bonus! Move even faster and farther along roads, and get where you're going sooner. Great!

Large, expansive land nations have the most to gain from the Master Control.

△ MEMETWORK

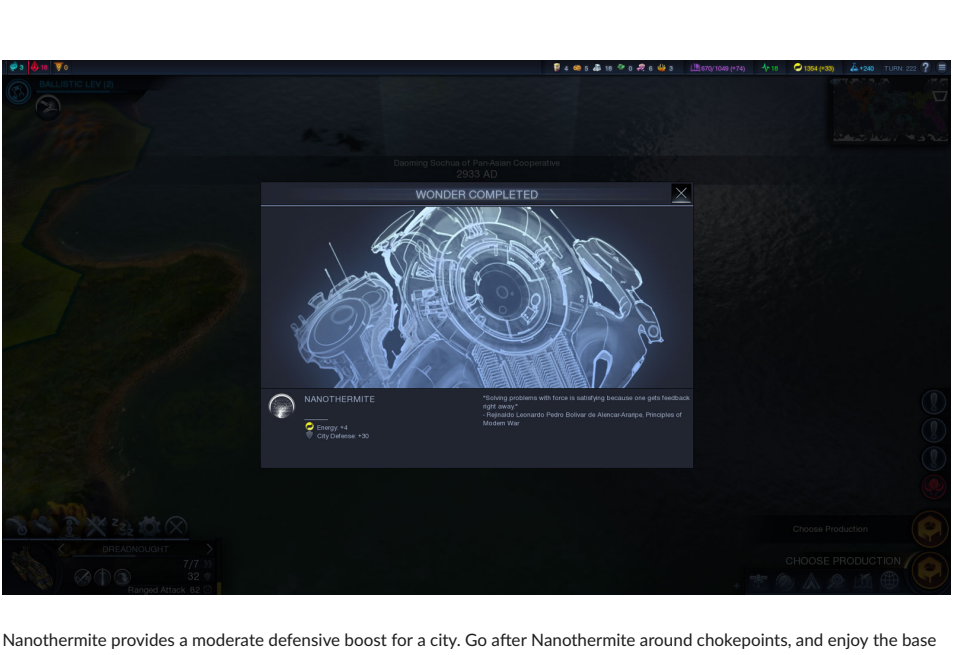
- **Cost**: 700 Production
- **Yield**: +2 Health, +4 Culture, +25% Culture in that city
- **Prerequisite**: Orbital Networks (Tech)



Use the Memetwork in your best cultural city to give yourself a boost in virtue acquisition. Maximize the bonus you get by installing domes around that city and shifting artists into available specialist slots. That one city can soon generate way more Culture than anything else in your nation. Supplement their food with trade routes and terrascapes, as needed. Though costly, terrascapes both keep your population fed and produce additional Culture. This can get pretty incredible if you manage that city carefully.

△ NANOTHERMITE

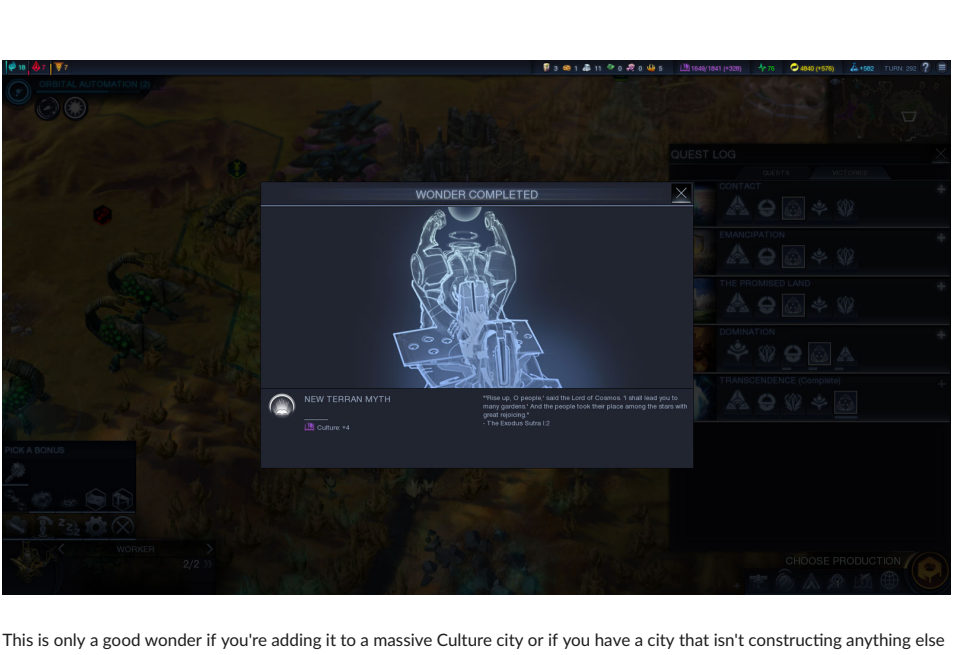
- **Cost**: 1050 Production
- **Yield**: City Strength +30, +4 Energy
- **Prerequisite**: Nanotechnology (Tech)



Nanothermite provides a moderate defensive boost for a city. Go after Nanothermite around chokepoints, and enjoy the base Energy bonus it provides. Neither of these provides huge swings in power for that city, so this wonder is more of a target of opportunity.

△ NEW TERRAN MYTH

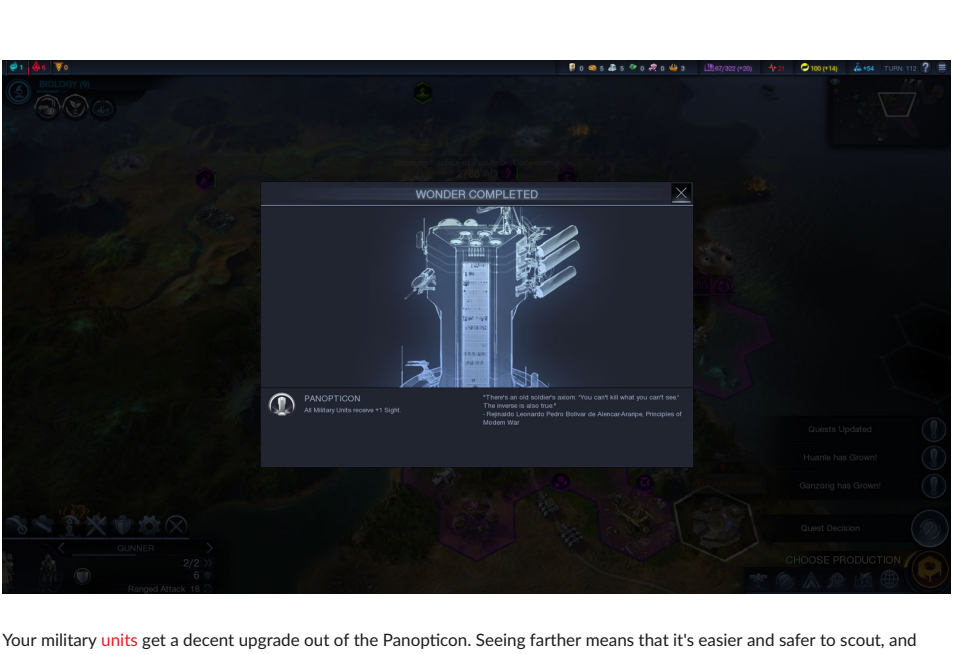
- **Cost**: 750 Production
- **Yield**: +4 Culture
- **Prerequisite**: Human Idealism



This is only a good wonder if you're adding it to a massive Culture city or if you have a city that isn't constructing anything else at the moment.

△ PANOPTICON

- **Cost**: 250 Production
- **Yield**: +1 Culture, +1 Sight for military units
- **Prerequisite**: Defense Grid (Tech)

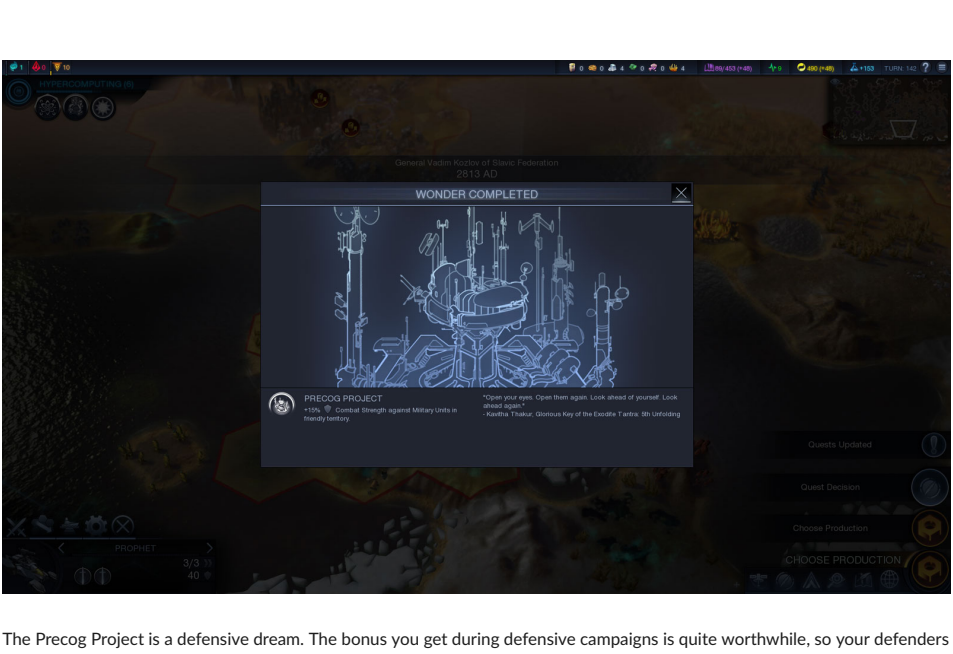


Your military units get a decent upgrade out of the Panopticon. Seeing farther means that it's easier and safer to scout, and your ranged units have a slight edge in combat because they can see enemies sooner and prepare themselves. This is so much fun when you rely on fast rovers to scout and pillage enemy territory.

Defensive and offensive players benefit well from this, so there aren't many players who won't try to get this wonder at some point. The key issue is when you want to research Defense Grid, a Technology that isn't as useful in the early game unless there is a sudden war during the expansion period. If you're willing to sacrifice some of your Research time, you can usually grab Defense Grid early and construct the Panopticon before anyone else has the chance to try.

△ PRECOG PROJECT

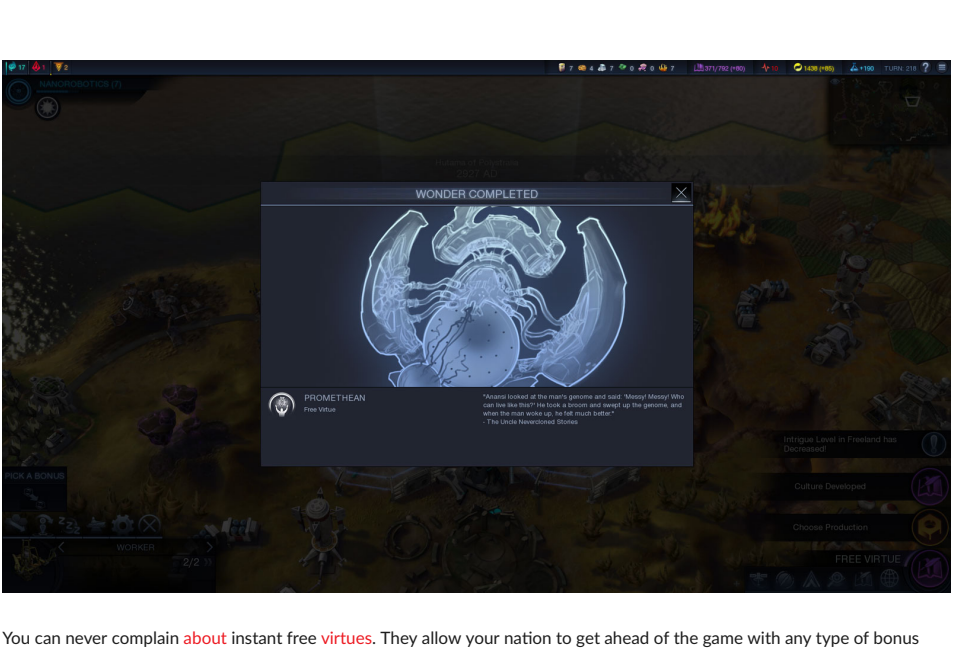
- **Cost**: 450 Production
- **Yield**: +2 Health, +2 Culture, 15% Combat Strength vs. military units in friendly territory
- **Prerequisite**: Collaborative Thought



The Precog Project is a defensive dream. The bonus you get during defensive campaigns is quite worthwhile, so your defenders dish out tons of damage and won't go down easily. Combine this with Healing bonuses to make your nation agonizing to campaign against. Aggressors are likely to go elsewhere when they realize how much their war is going to cost them.

△ PROMETHEAN

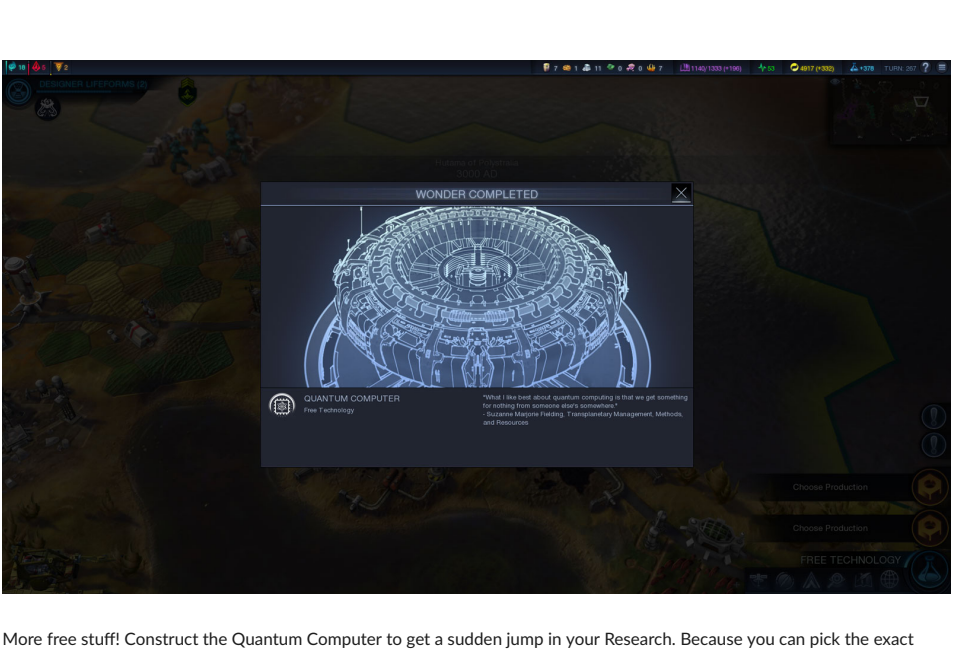
- **Cost**: 950 Production
- **Yield**: +4 Health, +2 Culture, gain 1 free virtue
- **Prerequisite**: Transgenics (Tech)



You can never complain about instant free virtues. They allow your nation to get ahead of the game with any type of bonus that you need. Promethean is always a solid choice for a wonder, regardless of your playstyle.

△ QUANTUM COMPUTER

- **Cost**: 1050 Production
- **Yield**: +5 Science, gain 1 free Technology
- **Prerequisite**: Field Theory (Tech)

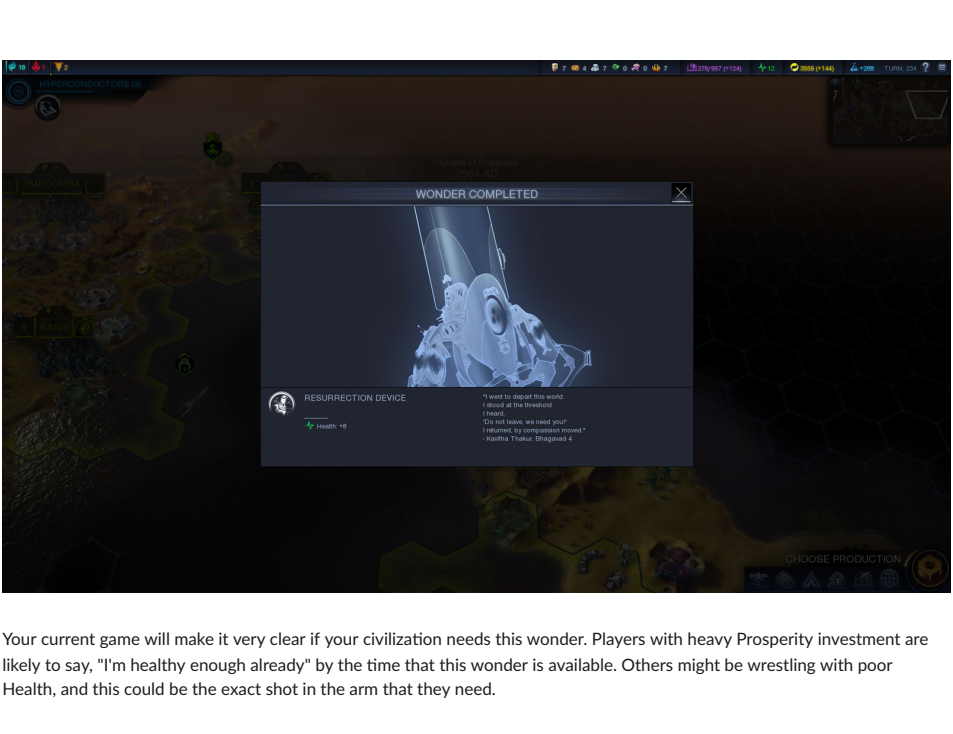


More free stuff! Construct the Quantum Computer to get a sudden jump in your Research. Because you can pick the exact piece of tech to gain, it's worthwhile to prepare for this wonder ahead of time. Look through the tech web to see what you need the most but can't afford to research yet (because it would take too long). Grab Technology close enough to unlock the Research potential for your target tech, and use the Quantum Computer to score the free Research.

Don't simply get something because it's expensive. Make this count! Find something that is going to give you a major edge in affinity, a building that you desperately need, a victory project, etc.

△ RESURRECTION DEVICE

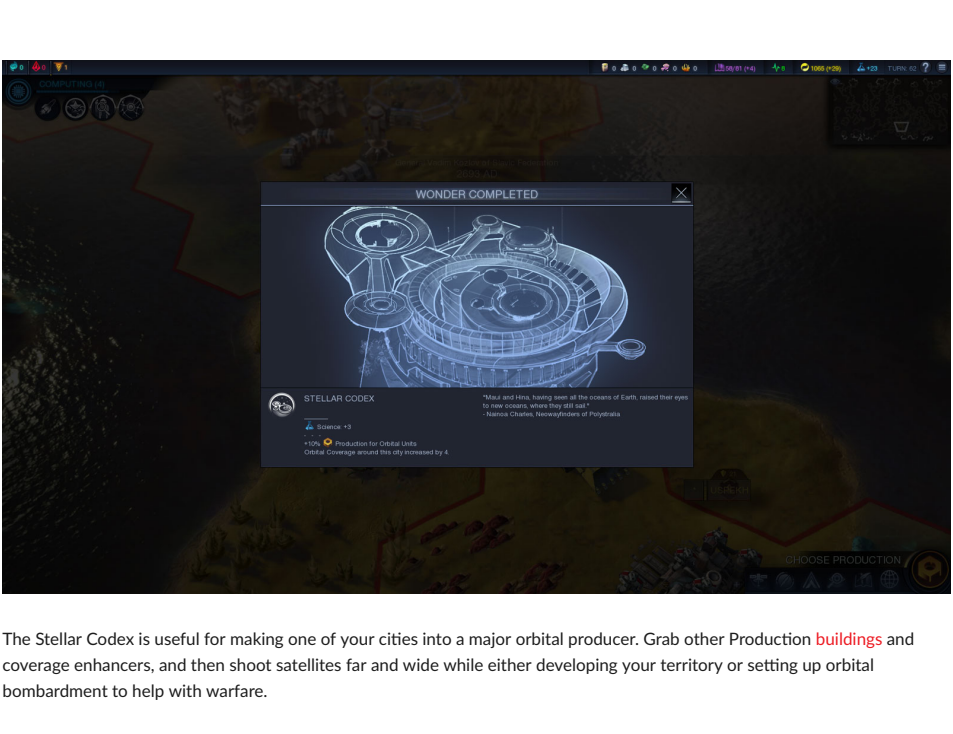
- **Cost**: 1350 Production
- **Yield**: +8 Health
- **Prerequisite**: Artificial Evolution (Tech)



Your current game will make it very clear if your civilization needs this wonder. Players with heavy Prosperity investment are likely to say, "I'm healthy enough already" by the time that this wonder is available. Others might be wrestling with poor Health, and this could be the exact shot in the arm that they need.

△ STELLAR CODEX

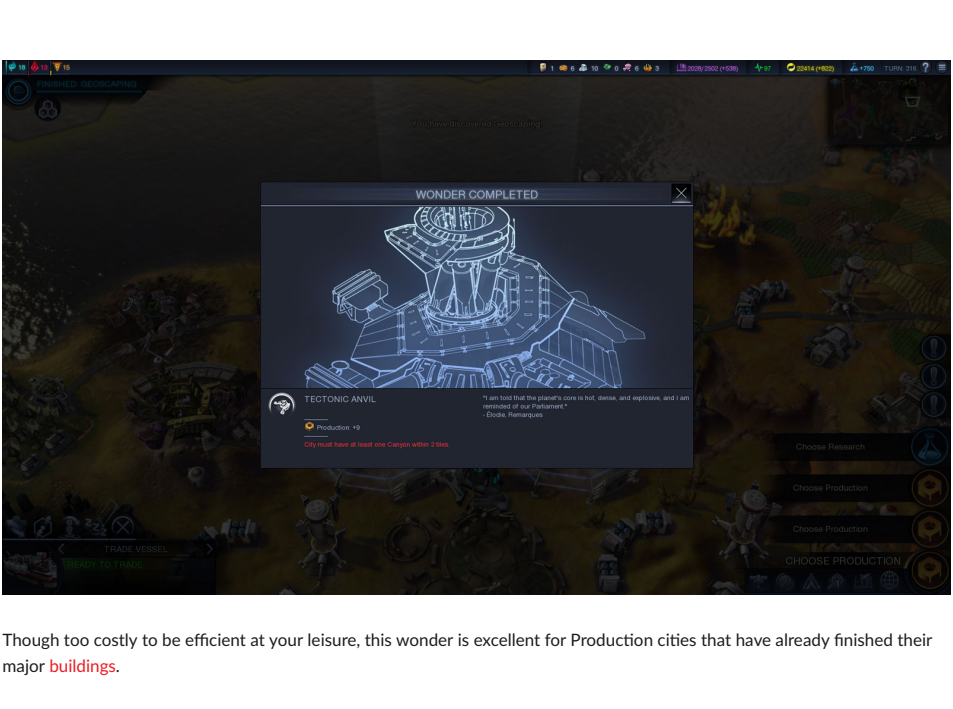
- **Cost**: 225 Production
- **Yield**: +3 Science, +10% Production for orbital units, +4 Orbital Coverage for that city
- **Prerequisite**: Ballistics (Tech)



The Stellar Codex is useful for making one of your cities into a major orbital producer. Grab other Production buildings and coverage enhancers, and then shoot satellites far and wide while either developing your territory or setting up orbital bombardment to help with warfare.

△ TECTONIC ANVIL

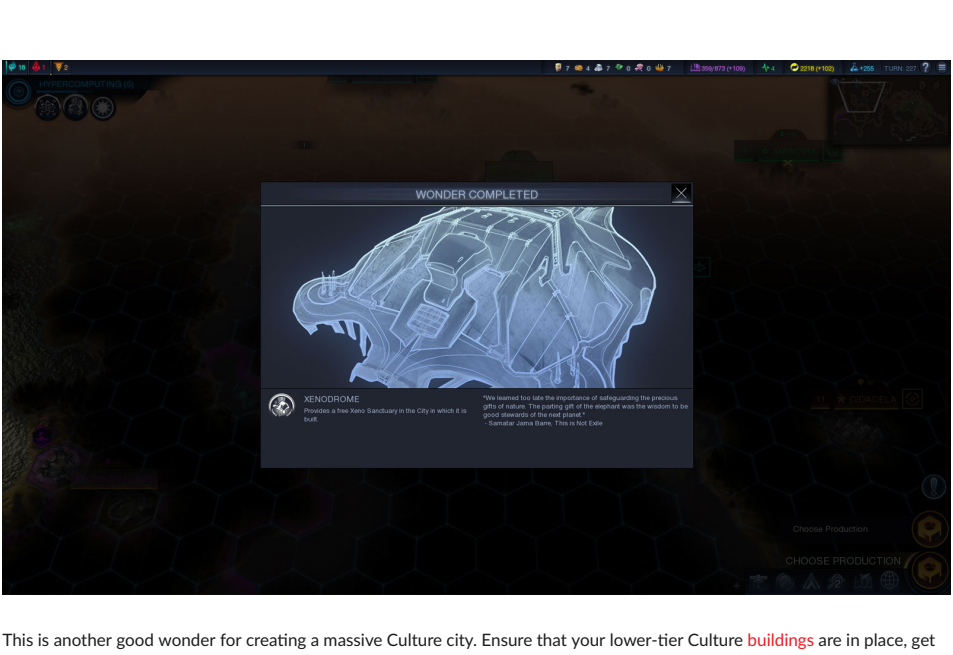
- **Cost**: 1550 Production
- **Yield**: +9 Production
- **Prerequisite**: Metamaterials (Tech), Geothermal (Resource)



Though too costly to be efficient at your leisure, this wonder is excellent for Production cities that have already finished their major buildings.

△ XENODROME

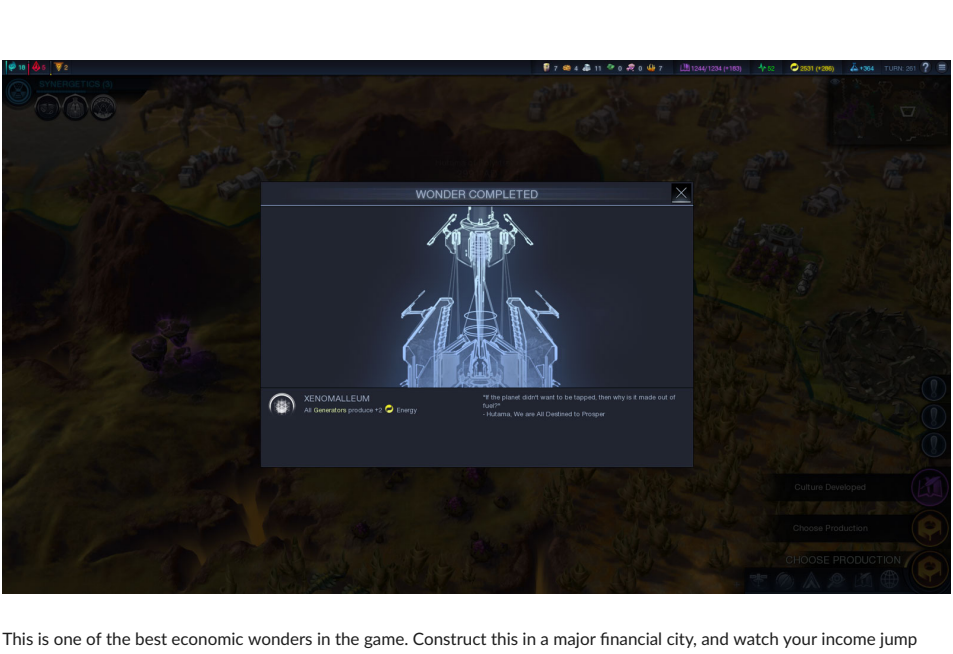
- **Cost**: 750 Production
- **Yield**: +4 Culture, adds a Xeno Sanctuary to that city
- **Prerequisite**: Alien Ethics (Tech), Geothermal (Resource)



This is another good wonder for creating a massive Culture city. Ensure that your lower-tier Culture buildings are in place, get your Xenodrome, and add domes if you want even more cultural power.

△ XENOMALLEUM

- **Cost**: 1050 Production
- **Yield**: +7 Energy, +2 Energy for generators
- **Prerequisite**: Bioengineering (Tech)



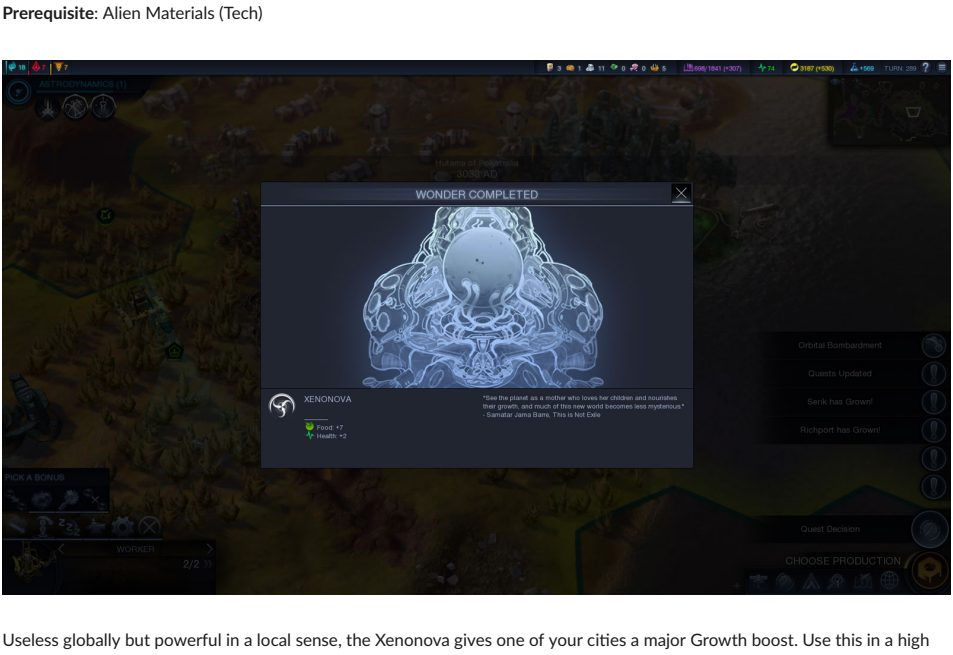
This is one of the best economic wonders in the game. Construct this in a major financial city, and watch your income jump when it completes. If you succeed, generators become very lucrative financial improvements instead of just being nice.

△XENONOVA

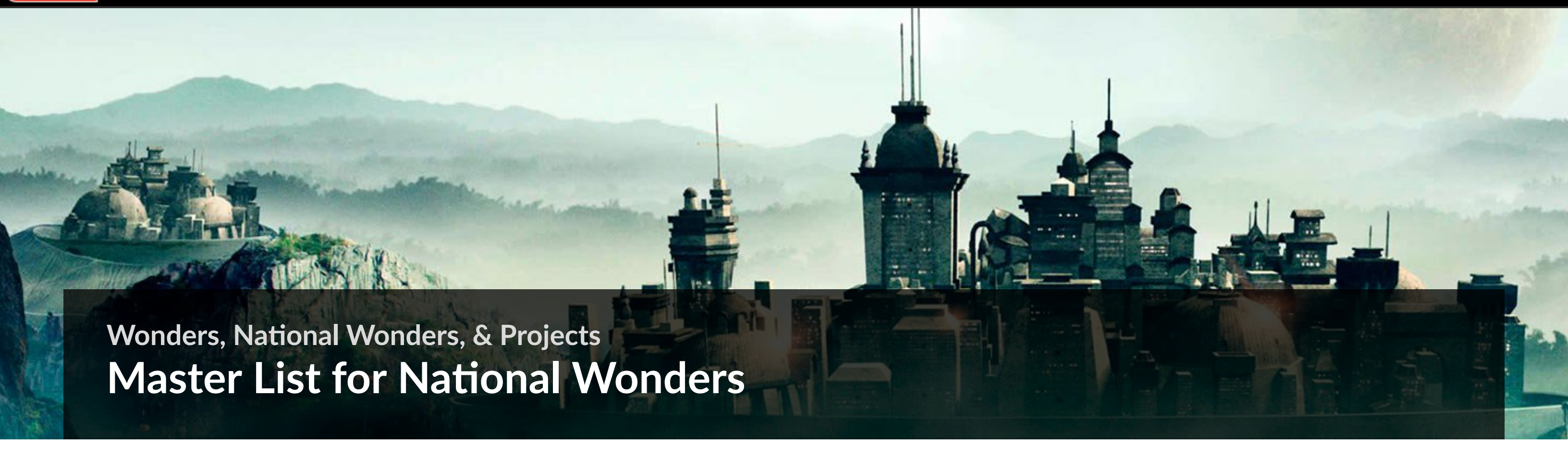
Cost: 1150 Production

Yield: +2 Health, +7 Food

Prerequisite: Alien Materials (Tech)



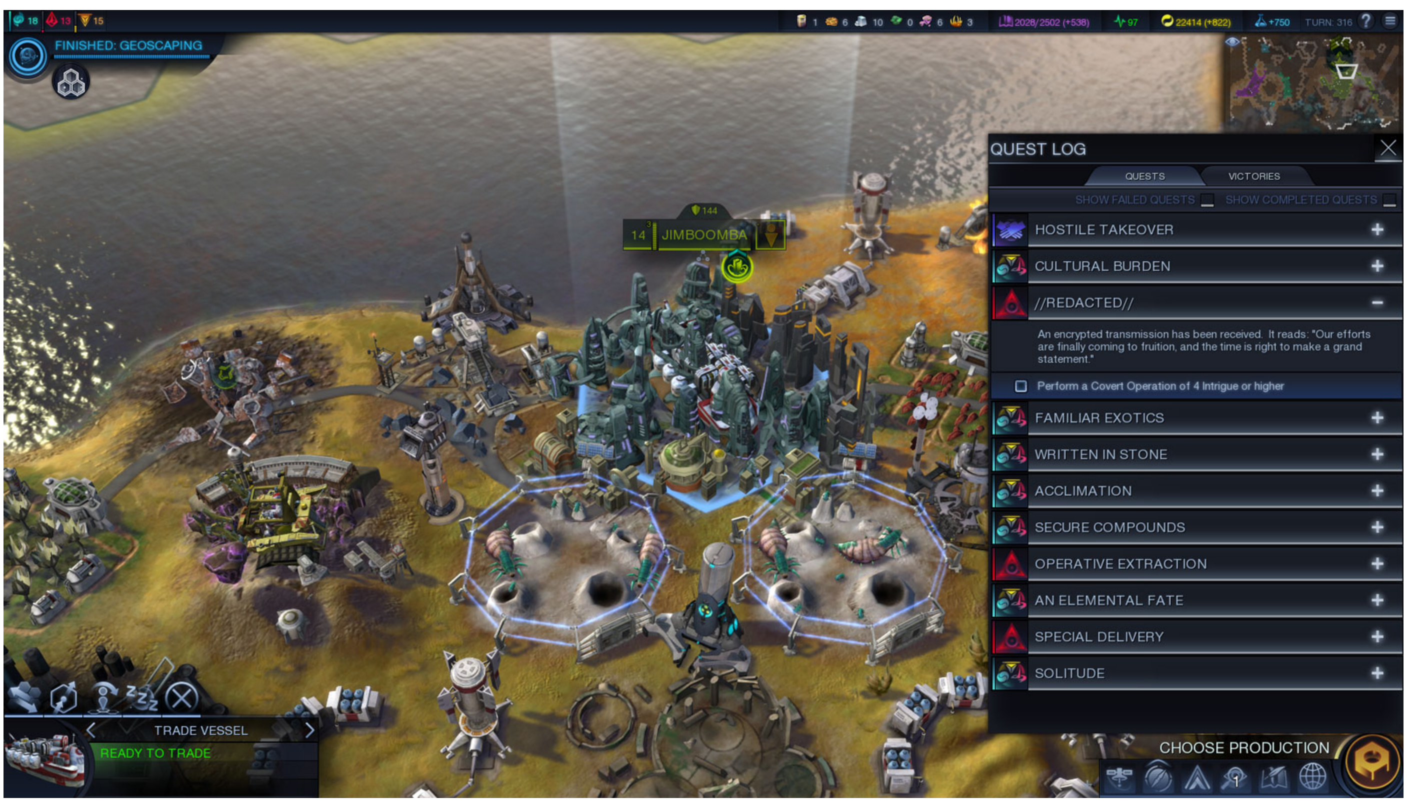
Useless globally but powerful in a local sense, the Xenonova gives one of your cities a major Growth boost. Use this in a high Production city to compensate for any lack of Food. You can afford to have more mines and manufactories around with this much base Food generation.



Master List for National Wonders

CULPER LODGE

- **Cost**: Free
- **Yield**: Covert agents become special agents
- **Prerequisite**: None



QUEST LOG

HOSTILE TAKEOVER

CULTURAL BURDEN

//REDACTED//

An encrypted transmission has been received. It reads: "Our efforts are finally coming to fruition, and the time is right to make a grand statement."

☐ Perform a Covert Operation of 4 Intrigue or higher

FAMILIAR EXOTICS

WRITTEN IN STONE

ACCLIMATION

SECURE COMPOUNDS

OPERATIVE EXTRACTION

AN ELEMENTAL FATE

SPECIAL DELIVERY

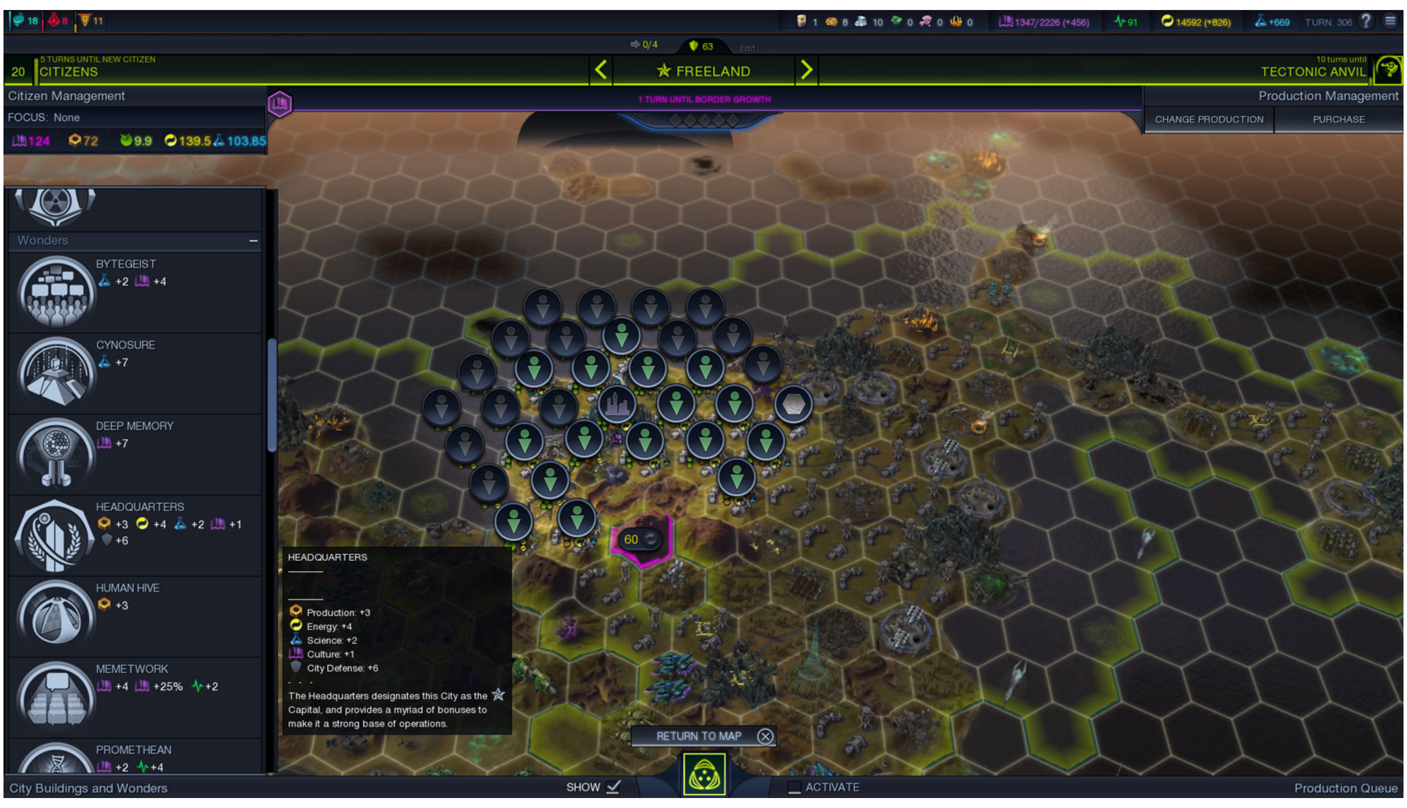
SOLITUDE

FINISHED: GEOSCAPING
JIMBOOMBA
QUESTS
VICTORIES
SHOW FAILED QUESTS
SHOW COMPLETED QUESTS
TRADE VESSEL
READY TO TRADE
CHOOSE PRODUCTION
TURN: 316

Watch your quests in the late game. Eventually, you'll get a chance to earn the Culper Lodge. When this occurs, you get to have all of your spies become special agents instead of having to work their way up through the ranks.

HEADQUARTERS

- **Cost**: Free
- **Yield**: +1 Culture, Defense +6, +4 Energy, +2 Science, +3 Production
- **Prerequisite**: None



HEADQUARTERS

Production: +3
Energy: +4
Science: +2
Culture: +1
City Defense: +6

The Headquarters designates this City as the Capital, and provides a myriad of bonuses to make it a strong base of operations.

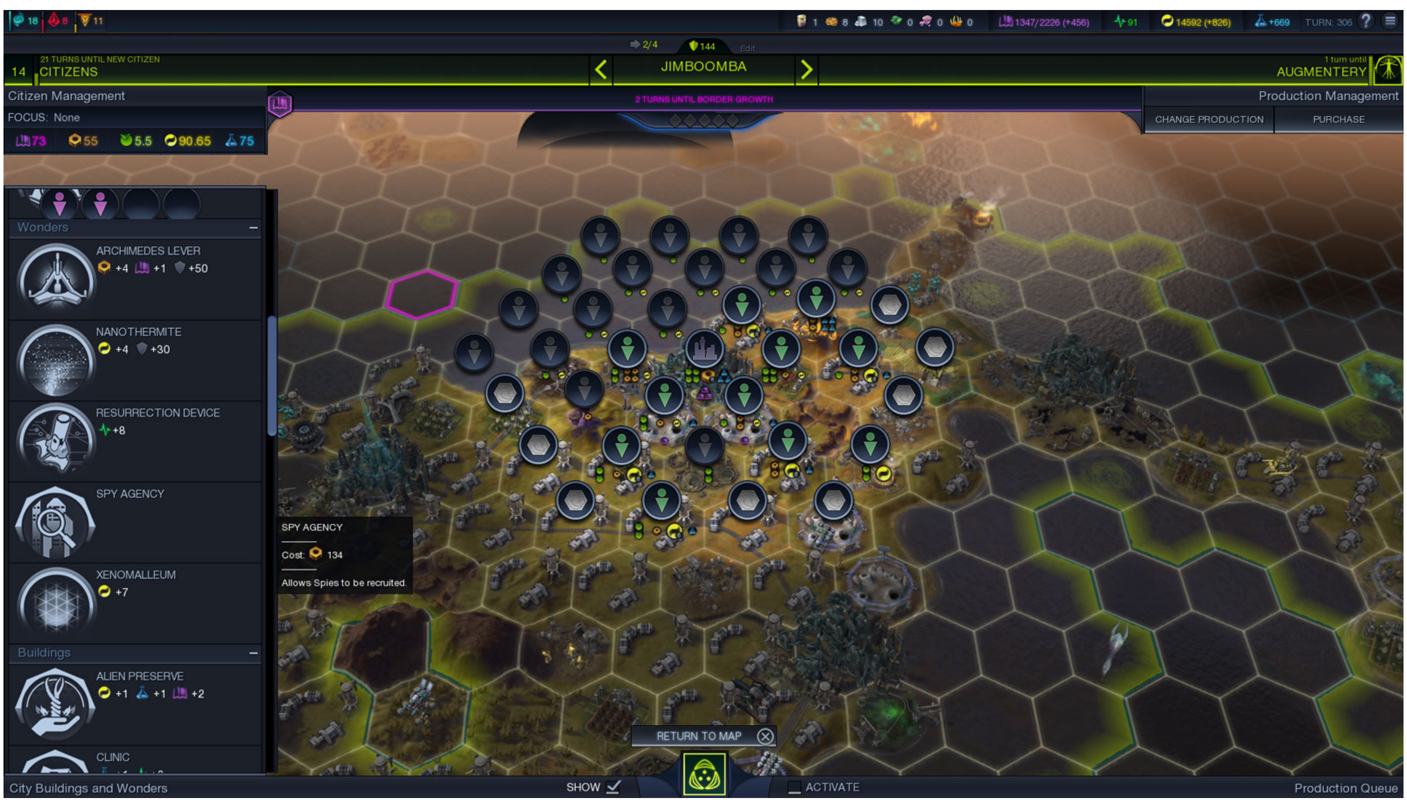
CITIZENS
FREELAND
TECTONIC ANVIL
Citizen Management
Production Management
Wonders
BYTEGEIST
CYNOSURE
DEEP MEMORY
HEADQUARTERS
HUMAN HIVE
MEMETWORK
PROMETHEAN
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

The capital city for your nation gets this national wonder automatically, which makes that city much more productive. Note that your capital is the city that must be connected with others via water or roads for economic bonuses to occur, so connect everything to your capital as soon as possible.

If you lose your capital during a war, the Headquarters are moved to a new city. They'll return to the old capital if you ever retake it.

SPY AGENCY

- **Cost**: 200 Production
- **Yield**: Gain 3 spies
- **Prerequisite**: Computing (Tech)



SPY AGENCY

Cost: 134

Allows Spies to be recruited.

CITIZENS
JIMBOOMBA
AUGMENTERY
Citizen Management
Production Management
Wonders
ARCHIMEDES LEVER
NANOTHERMITE
RESURRECTION DEVICE
SPY AGENCY
XENOMALLEUM
Buildings
ALIEN PRESERVE
CLINIC
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

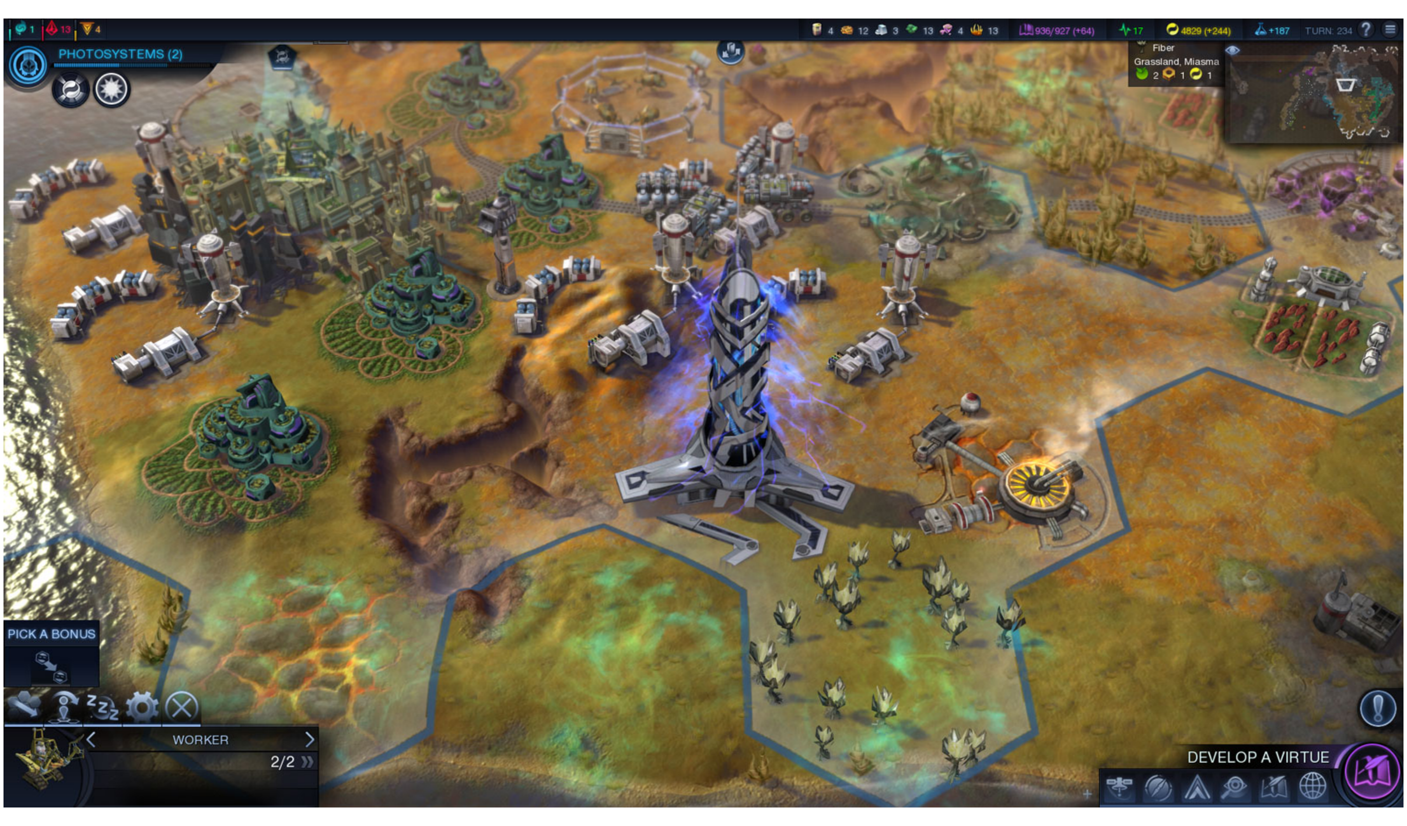
Build this as soon as you learn Computing. When it completes, you are given your first three spies and can start launching covert operations!

Wonders, National Wonders, & Projects

Master List for Projects

⚠ BEACON

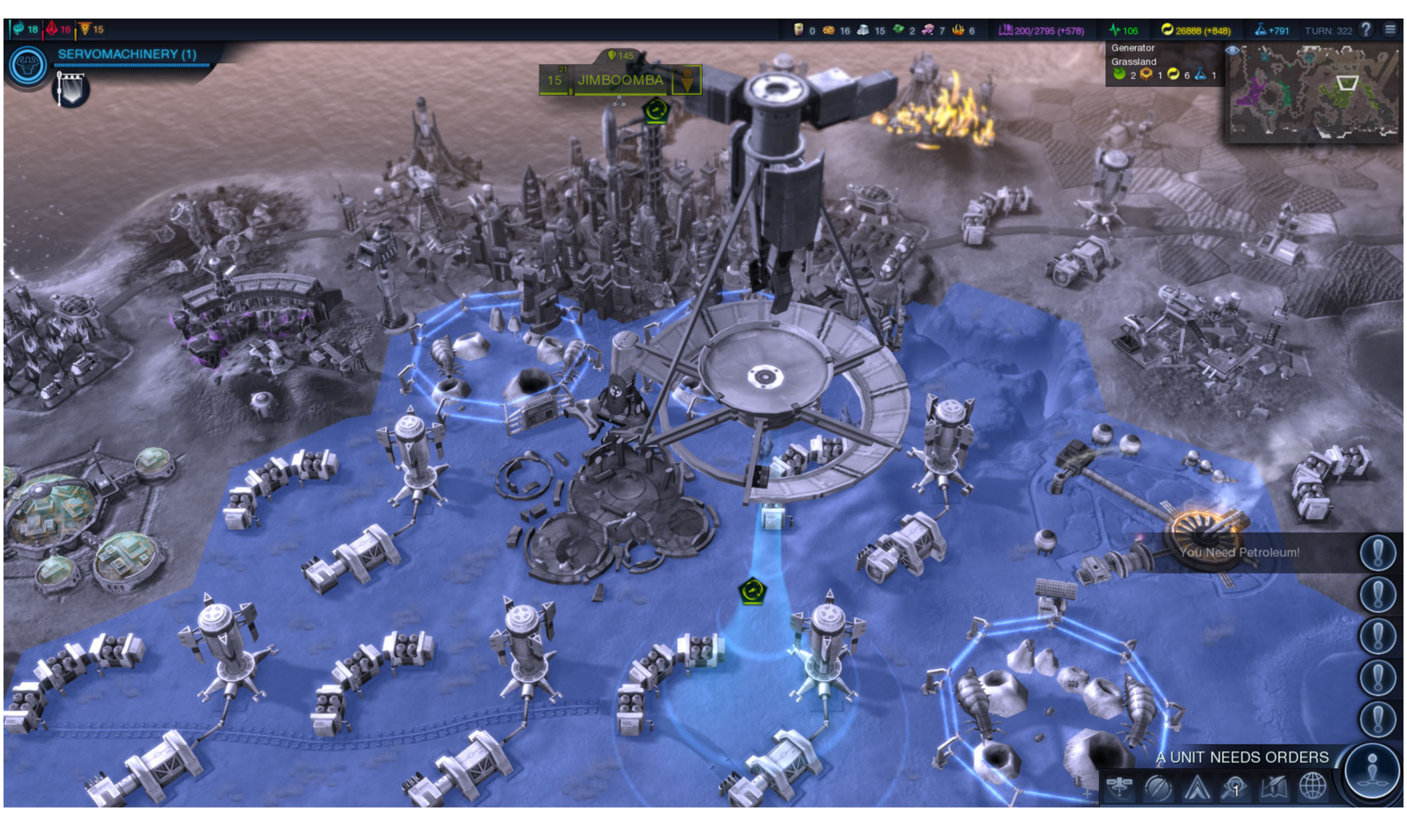
- **Cost**: 1650 Production
- **Yield**: Final element for Contact victory
- **Prerequisite**: Decode Signal


PHOTOSYSTEMS (2)
Fiber
Grassland, Miasma
PICK A BONUS
WORKER
2/2
DEVELOP A VIRTUE

The third project in the Contact victory chain, this Beacon gets you toward the end of the game. Energy is devoted each turn from your nation to need the strength of the Beacon. The more spare Energy you have, the faster your victory is secured. Have defenders guard the borders while all internal cities devote their Production toward bonus Energy.

⚠ DECODE SIGNAL

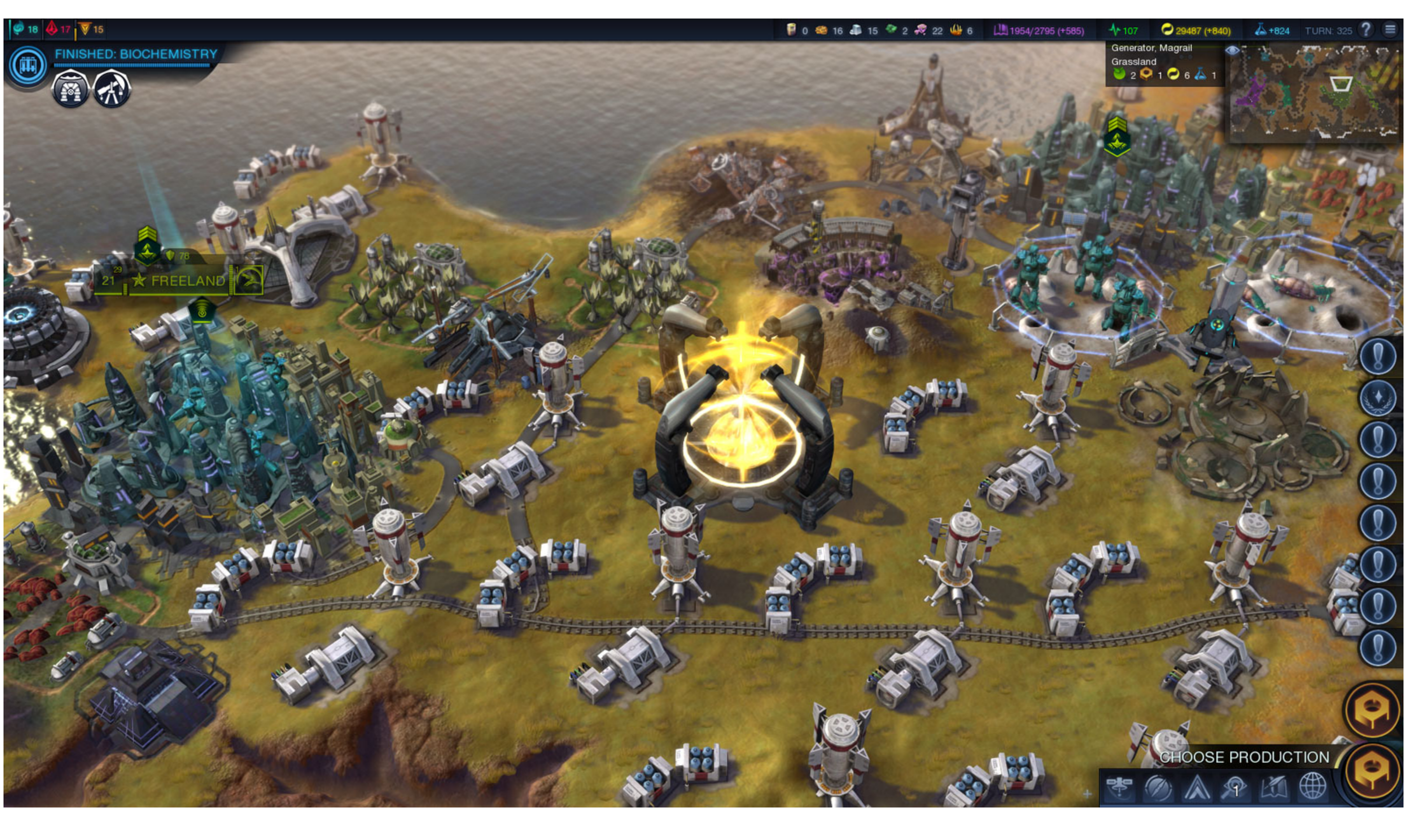
- **Cost**: 850 Production
- **Yield**: Allows Beacon construction
- **Prerequisite**: Transcendental Equation


You Need Petroleum!
A UNIT NEEDS ORDERS

After finishing the Transcendental Equation, you must work on this project if you're trying to win by a Contact victory. Get this done so that you can start going after the Beacon.

⚠ EMANCIPATION GATE

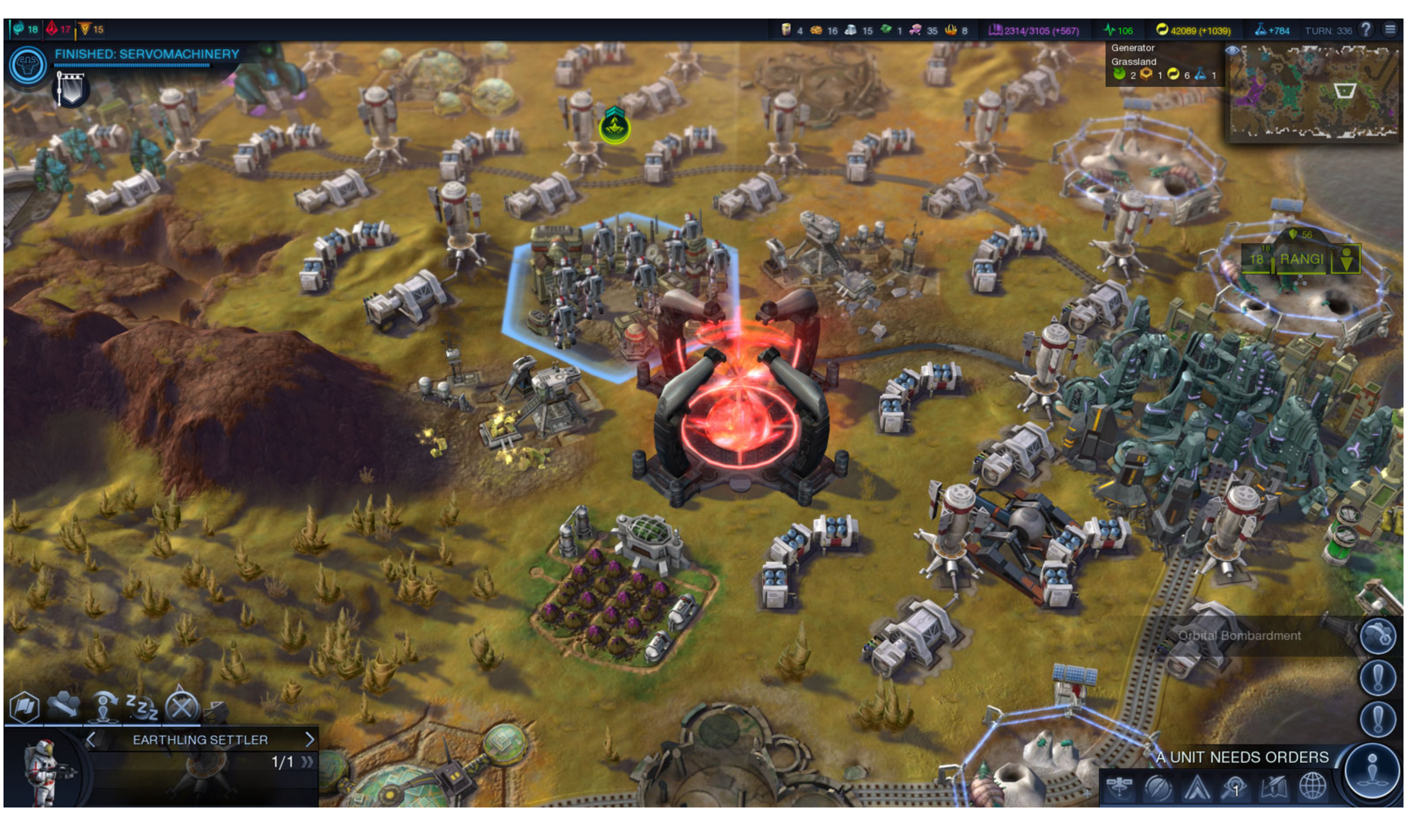
- **Cost**: 1750 Production
- **Yield**: Emancipation victory
- **Prerequisite**: Hypercomputing (Tech)


FINISHED: BIOCHEMISTRY
Generator, Magrail
Grassland
FREELAND
CHOOSE PRODUCTION

Complete this project to move toward an Emancipation victory. Once the gate is complete, send military units through the gate every turn. The more Combat Strength each unit has, the more they advance your progress toward victory. Make sure to defend the city nearby and the gate itself so that enemies can't stop your progress.

⚠ EXODUS GATE

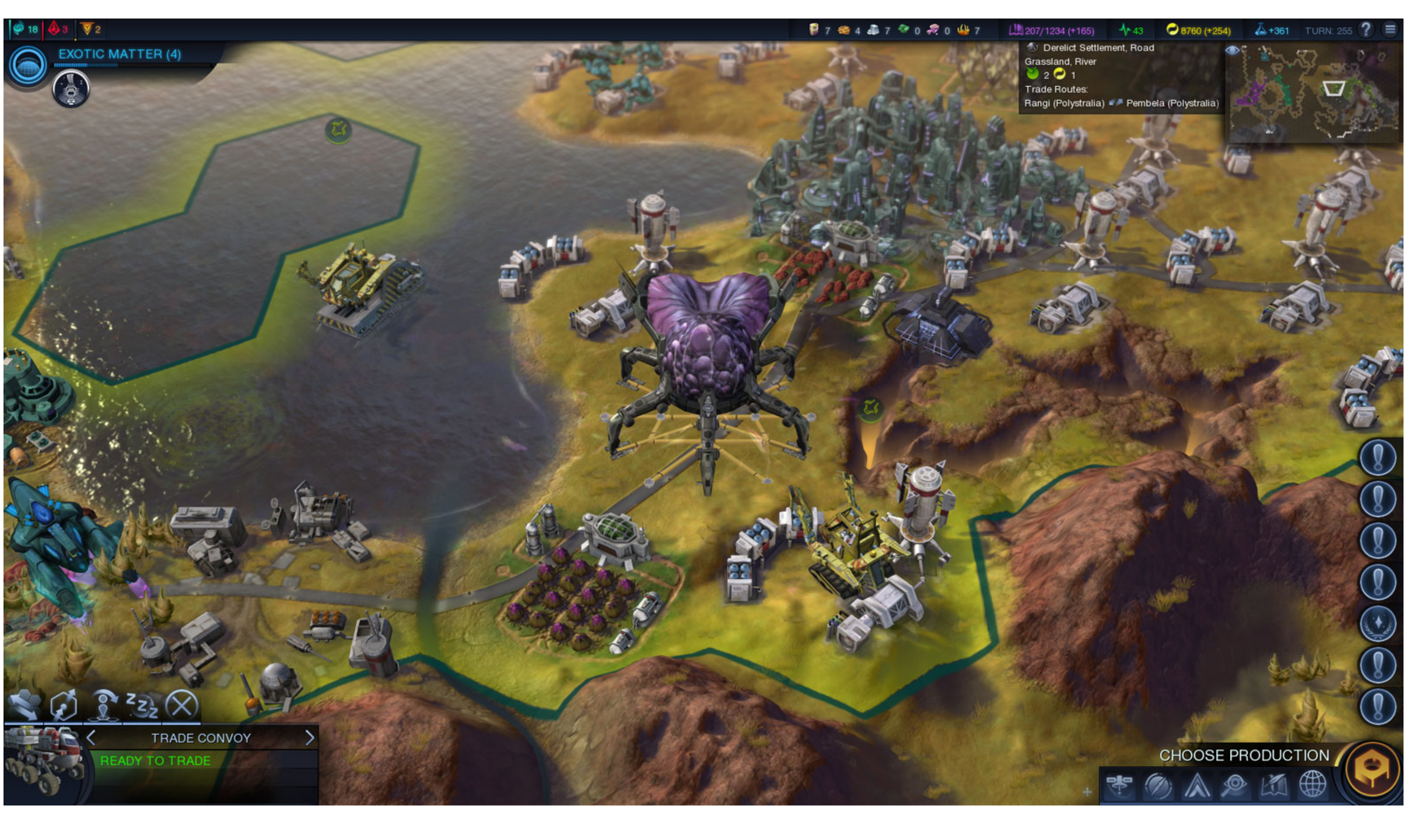
- **Cost**: 1750 Production
- **Yield**: Promised Land victory
- **Prerequisite**: Nanotechnology (Tech)


FINISHED: SERVOMACHINERY
Generator
Grassland
RANGI
Orbital Bombardment
EARTHLING SETTLER
1/1
A UNIT NEEDS ORDERS

This project gets you closer to a Promised Land victory. Finish the Exodus Gate, and protect that area while Earthling settlers pass through the gate. When enough of them get through, you win the game.

⚠ MIND FLOWER

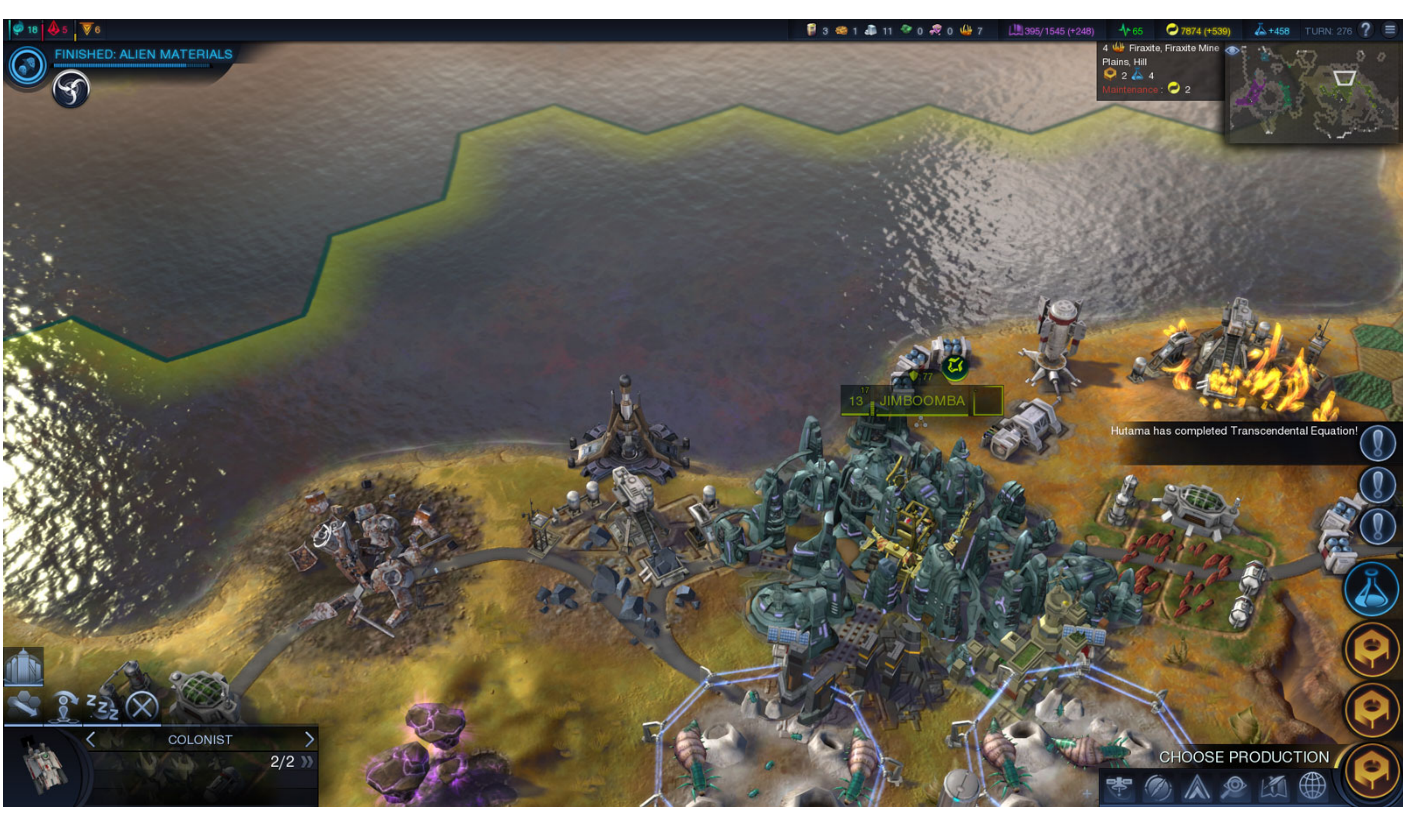
- **Cost**: 1900 Production
- **Yield**: Transcendence Victory
- **Prerequisite**: None


EXOTIC MATTER (4)
Derelict Settlement, Road
Grassland, River
Trade Routes:
Rangi (Polystralia)
Pembela (Polystralia)
TRADE CONVOY
READY TO TRADE
CHOOSE PRODUCTION

This project advances you toward a Transcendence victory. Once it's completed, use Mind Stems and Xeno Sanctuaries to hasten the process. The more of them you create, the sooner victory is achieved.

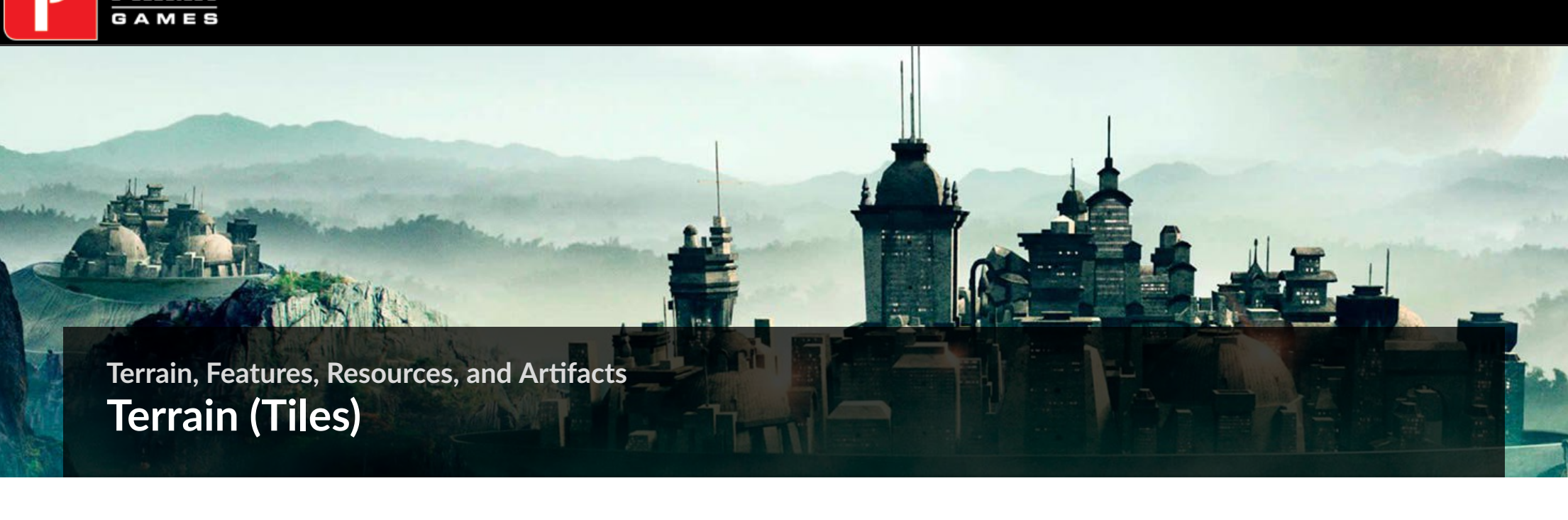
⚠ TRANSCENDENTAL EQUATION

- **Cost**: 450 Production
- **Yield**: Progress toward Contact victory
- **Prerequisite**: Transcendental Math (Tech)


FINISHED: ALIEN MATERIALS
Firaxite, Firaxite Mine
Plains, Hill
Maintenance
JIMBOOMBA
COLONIST
2/2
CHOOSE PRODUCTION

Hutama has completed Transcendental Equation!

This is the first major step toward achieving the Contact victory. Complete this project, and then start working on the Decode Signal project when that becomes available.



Terrain (Tiles)

This chapter explains everything about the types of tiles that make up the game's map and all of the various things that appear on those tiles to modify their values and functionality.

TERRAIN (TILES)

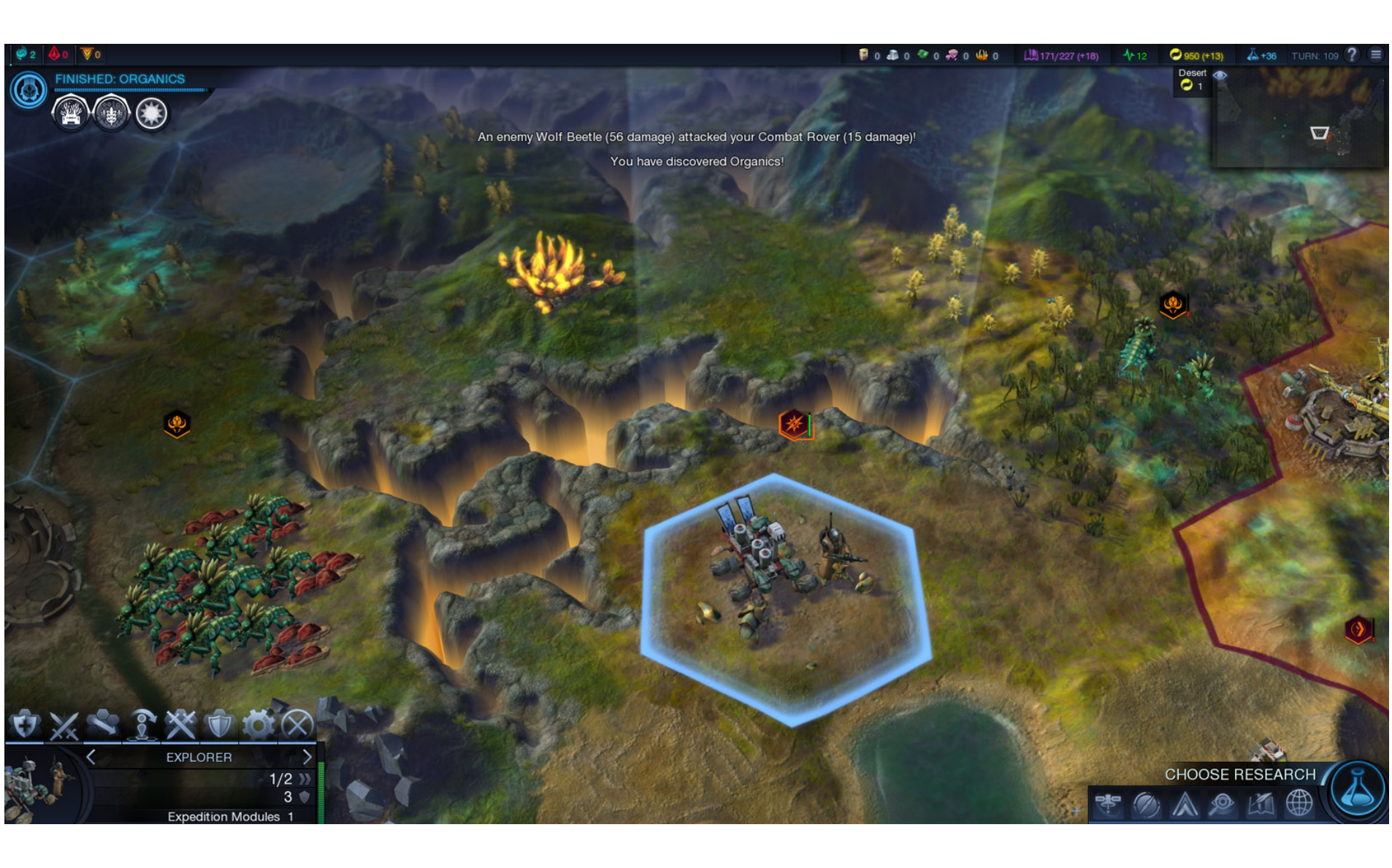
The game board is broken up into hex tiles that cover everything and everywhere. If you look carefully, you can see the differences between all types of tiles just with a visual scan. These areas look different and have varying statistics in regard to resources they generate and how units move through them.

City Yield is the resource capability of a tile. Does that tile generate Food, Production, Energy, or additional resources of any type? To determine this, use your mouse to highlight a tile and see the tip that pops up. When you're looking to develop an area, see how many tiles are worth developing. Too many desert or tundra tiles make for a weak city that won't thrive. It won't have the Food to grow or the Production to complete its buildings and units.

Movement Cost is the price for moving through an area. Many tiles cost one movement to get through, but others cost more because of their rough terrain. Several tiles may even be unpassable unless you're in a levitating craft (and those are later-game units).

Combat Modifier is a bonus to Combat Strength that is given for units that are attacked in that area. The rougher the terrain, the better these bonuses often are.

CANYON



An enemy Wolf Beetle (56 damage) attacked your Combat Rover (15 damage)!

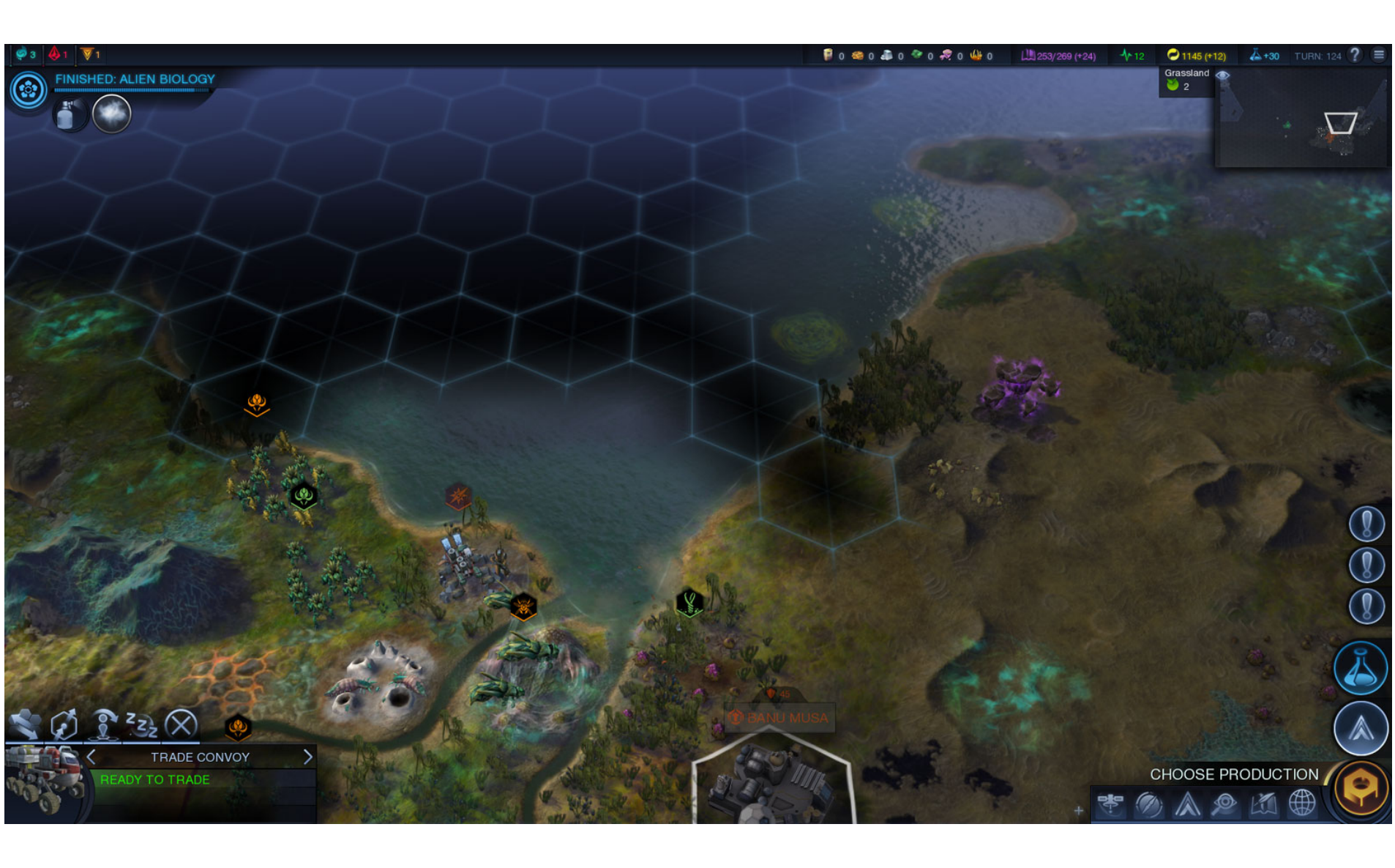
You have discovered Organics!

Canyons are deep chasms in the surface of this alien planet, impossible for non-flying units to move across. They're not particularly helpful to a city, except as barriers to approach.

Settle near canyons if you're close to a border with a more aggressive militarist. This limits the number of ways that your opponent can approach your city during a siege. That leads to a bottleneck, where even a superior force won't be able to use all of their best units. Defenders gain a humungous advantage if they bottleneck their opponents because there is more time to bombard them from the safety of their cities.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Canyons are impassable except to air and hover units.

COAST



Coast hexes are the ocean hexes directly adjacent to land. They provide Food and Energy to nearby cities. Only naval units, air and hover units, and "embarked" land units may enter coastal hexes.

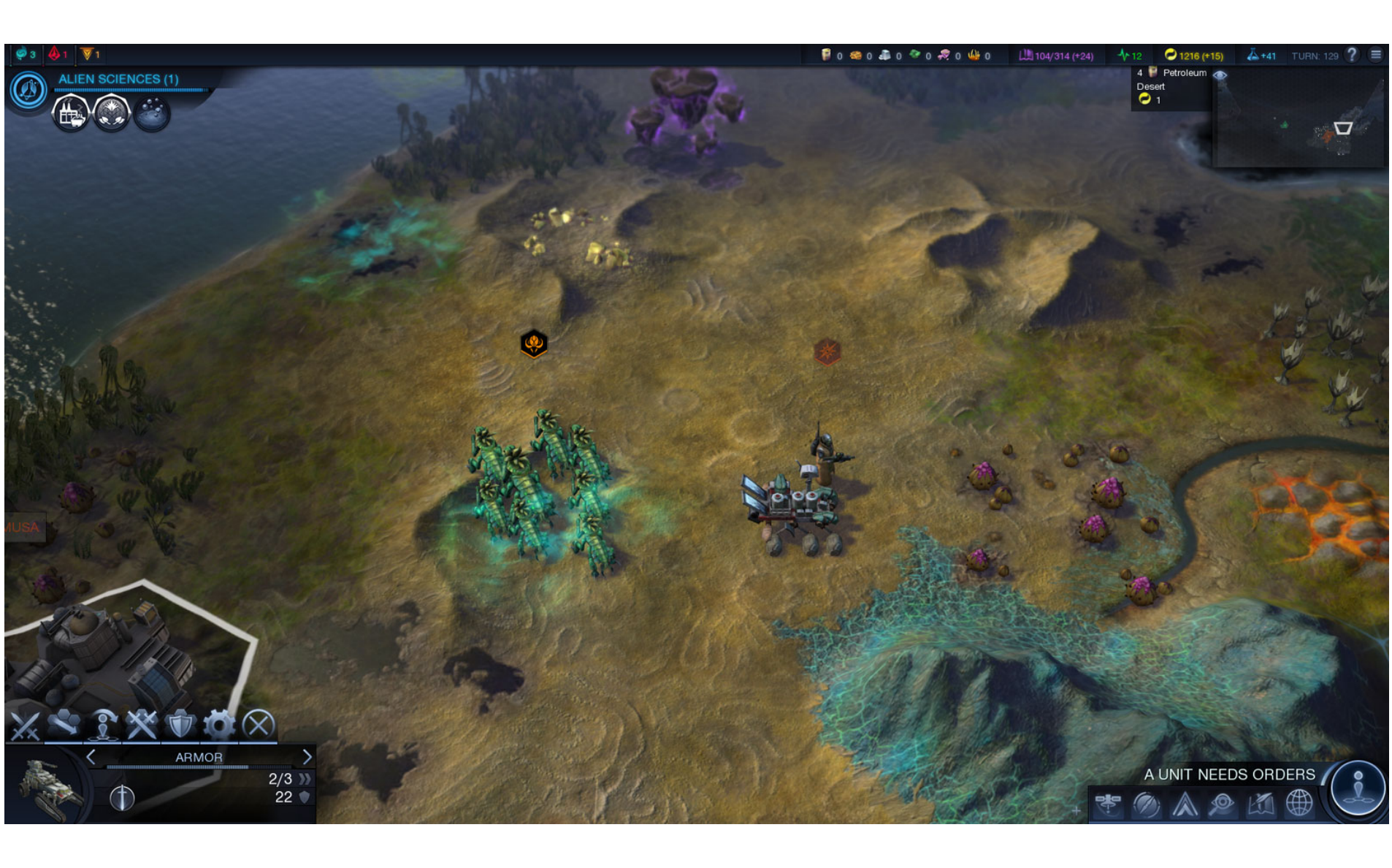
Your workers now improve water tiles differently than they used to. Before, cities constructed work boats and used them up when producing water improvements. Now, you simply embark your worker, improve the tiles just like the ones on land, and disembark whenever you're done. That's sure a nice perk! Don't forget to improve coastal tiles as soon as you can to get those bonuses.

Coastal areas get a moderate amount of alien traffic. Keep these waterways clear if you're fighting alien influence. It's easiest to do that by placing ranged units inside your coastal cities. Whenever anything gets too close, wake up the ranged units, and fire away (using the city's own defenses to augment your damage output). This helps get Experience for your younger military units, so there are multiple advantages here.

If you're playing peacefully with the aliens, let them swim by and have their fun.

- **Food**: 1
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Cannot build cities on coasts; only naval, air, hover, or embarked units may enter this kind of tile.

DESERT



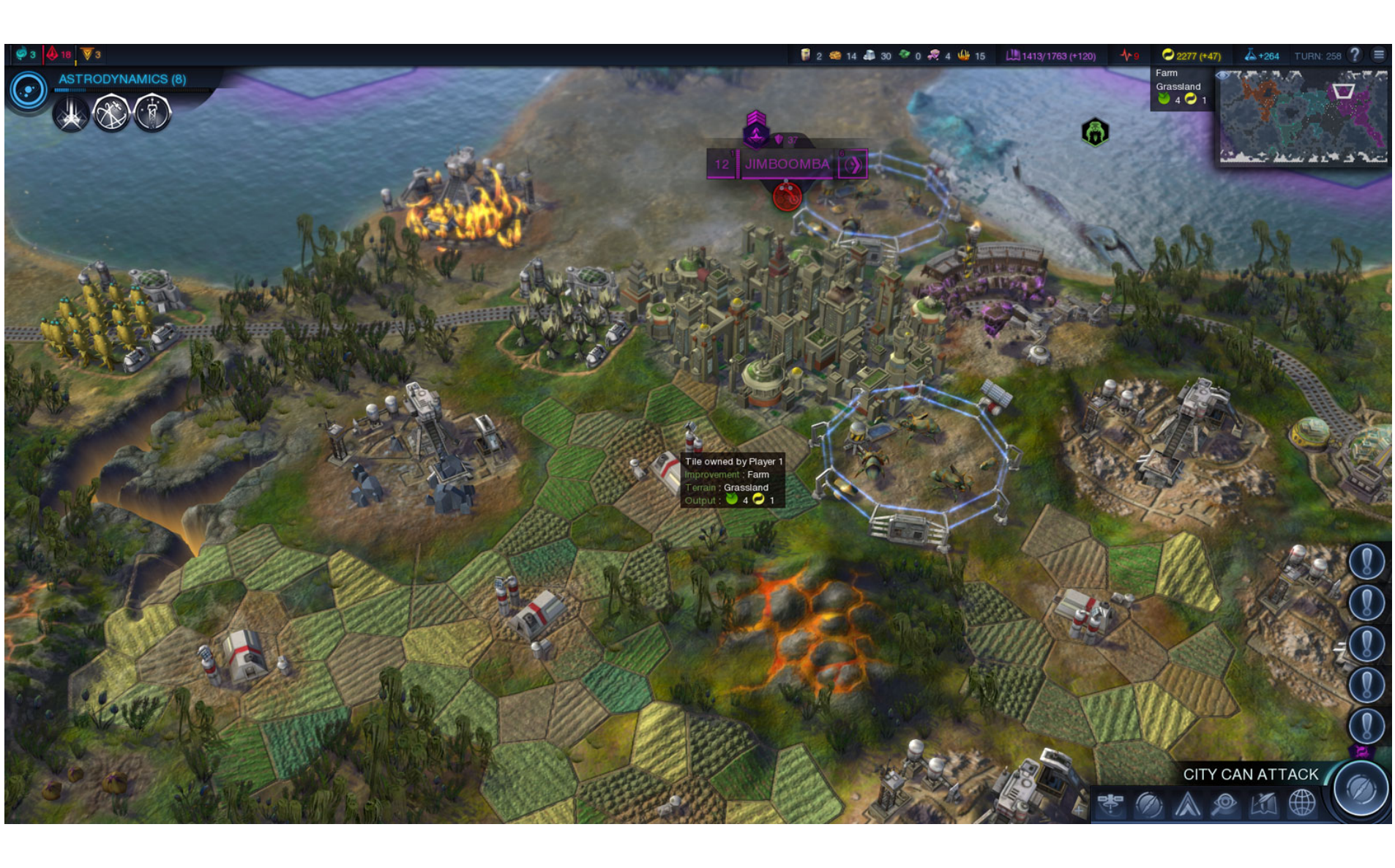
In general, desert hexes are remarkably barren. They provide almost no benefits to nearby cities (unless the desert contains a river or resource, of course), and units occupying them receive a defensive penalty in combat.

Try to avoid settling in heavy desert areas because of these downsides. In *Civilization V*, you had access to wonders that made deserts potentially rather useful, but in this game, you must rely on later-game tile improvements instead. Workers eventually get good options for this, but it's costly in terms of upkeep and an investment of worker turns.

If you do settle a city near a desert, make sure to get a vivarium in that city as soon as you can (purchase one outright, if possible).

- **Food**: 0
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

GRASSLAND

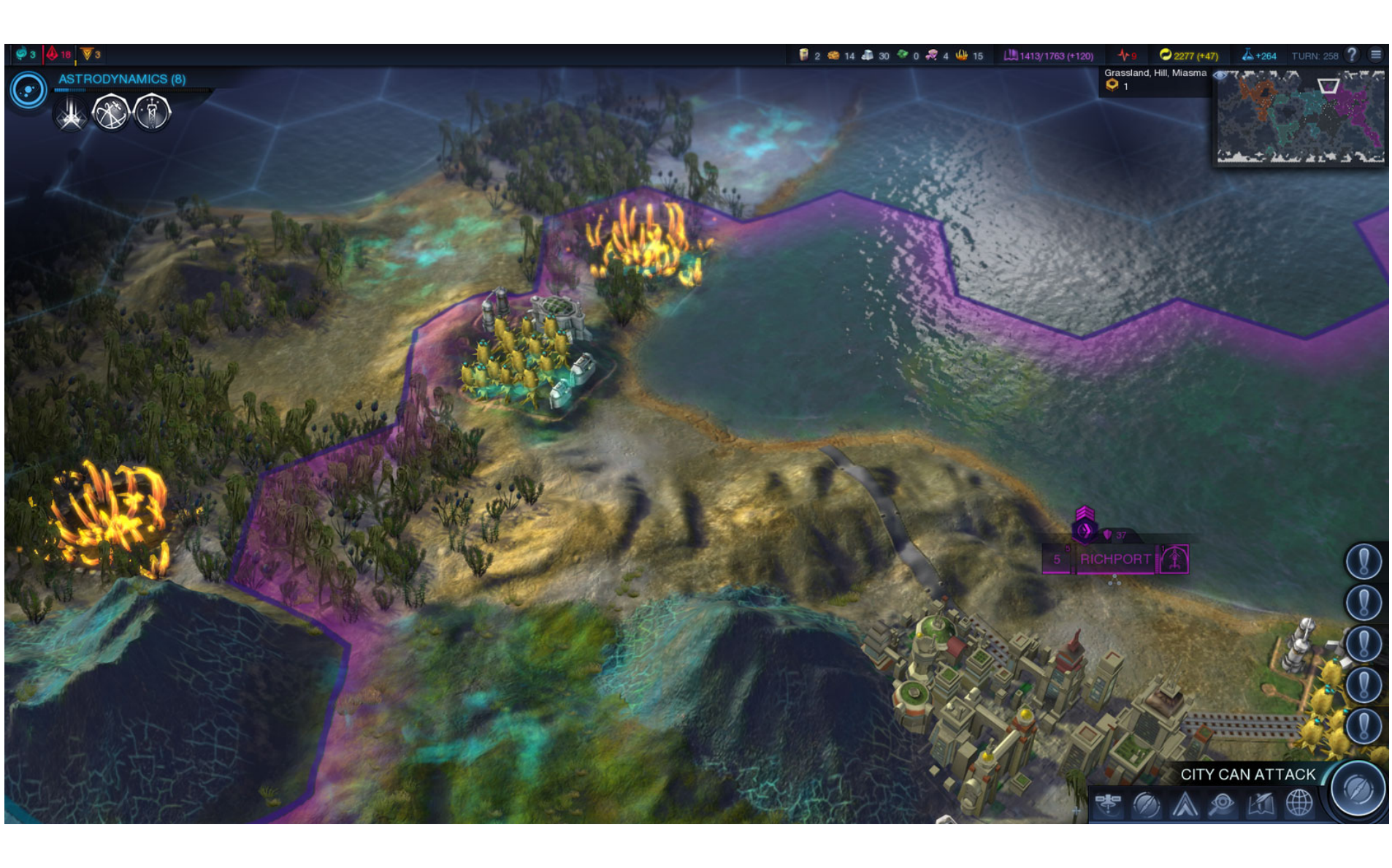


Generally, grassland produces the most Food of any terrain type. Cities constructed near grasslands tend to grow faster than cities built elsewhere.

Grasslands aren't great for defense because they're easy to sweep across with large military forces. They don't have defensive bonuses, so you're going to grow well but be exposed during warfare. Try to block off open grasslands with defensive units or entire cities elsewhere that prevent easy access to your heartland.

- **Food**: 2
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

HILLS



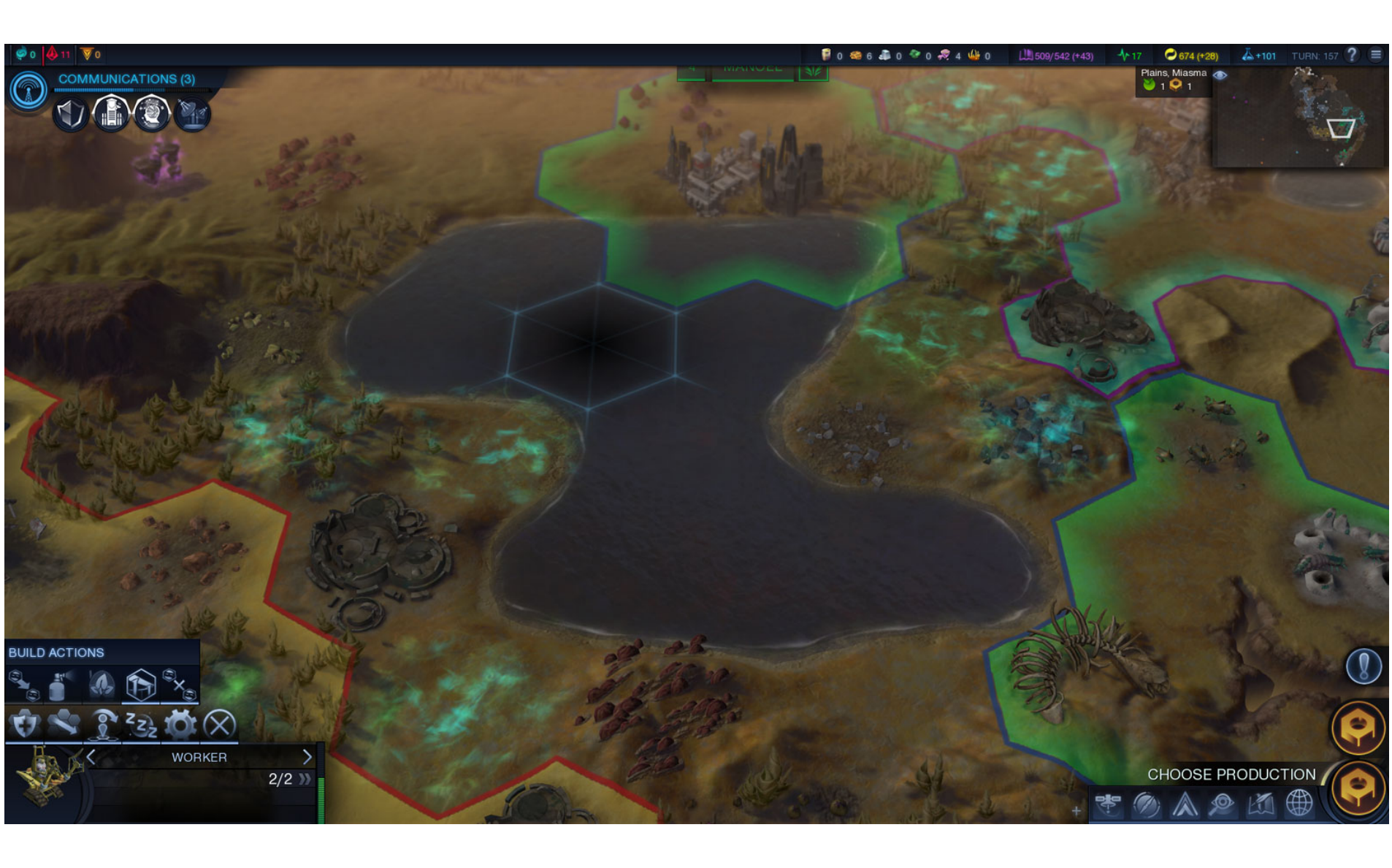
Hills are difficult to improve and hard to move through, but they provide good defensive bonuses, and you can find many different resources there. Additionally, units atop hills can see over "blocking terrain." Hills provide increased productivity to a nearby city, as well as important combat bonuses.

Station ranged units on hills, especially if there is additional rough terrain nearby. This prevents enemies from approaching quickly and killing your ranged buddies, and it gives them time to fire, hassle enemy troops, and even escape if they don't have enough firepower to get the job done before reinforcements arrive.

Fortified melee troops are also wonderful when they're deployed on hills. The cumulative bonuses from fortification and rough terrain make them murderously annoying to kill.

- **Food**: 0
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food 0

LAKE

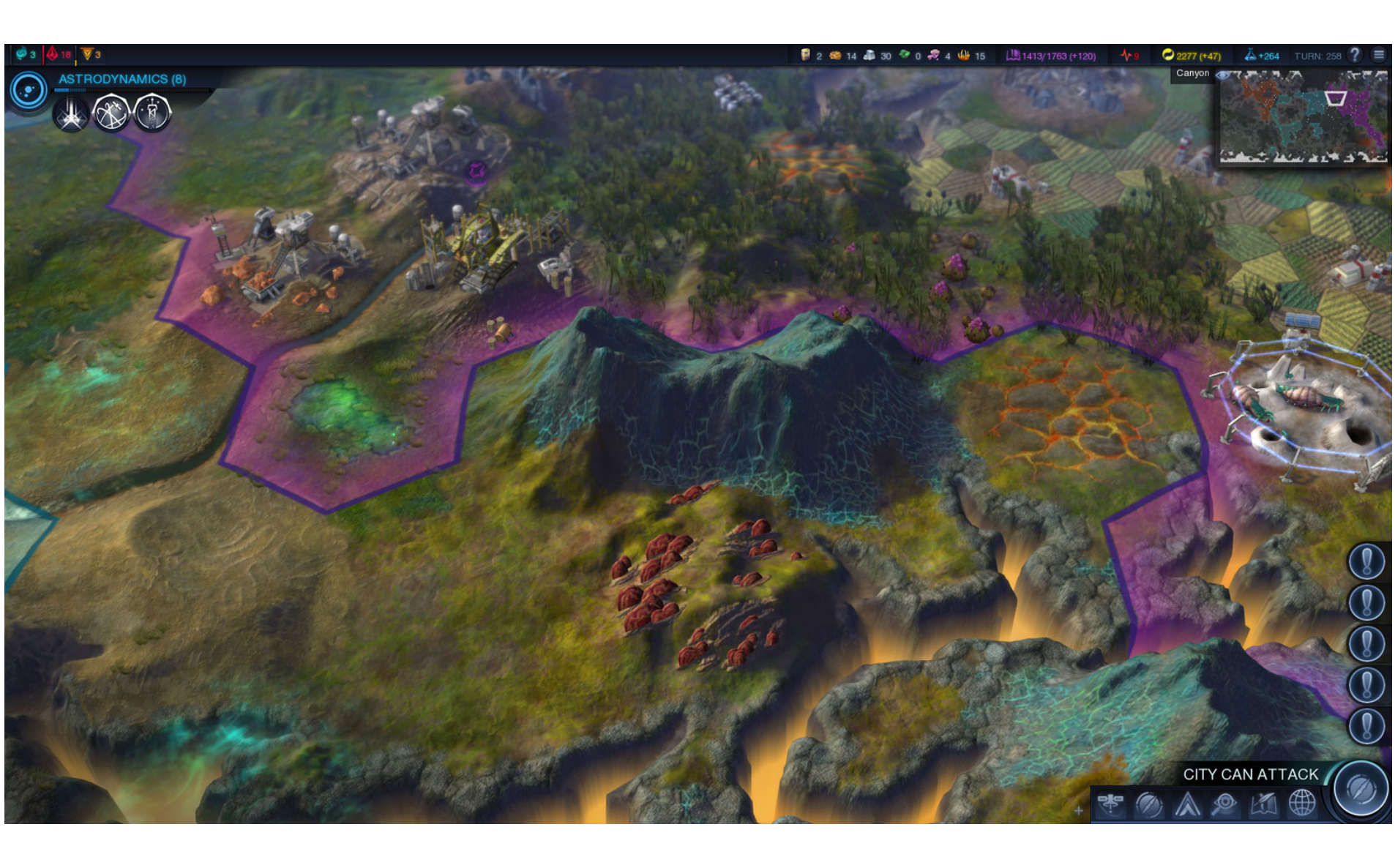


A lake is any body of water 10 tiles or smaller in size that is completely surrounded by land tiles. Lakes are easier to develop cities near than ocean territory, which demands that you have water refineries to get the most out of them. When you find lakes in the early game, settle around them aggressively for cities that grow quickly and have strong economies.

If enemies have constructed cities on the other side of a lake, it's worth investing in a small navy to harass them during upcoming warfare. Otherwise, don't put many naval units into lakes. They won't be able to cover much territory, and that's a waste of your resources.

- **Food**: 2
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Only naval, air, hover, or embarked units may enter a lake tile.

MOUNTAIN/CRATER



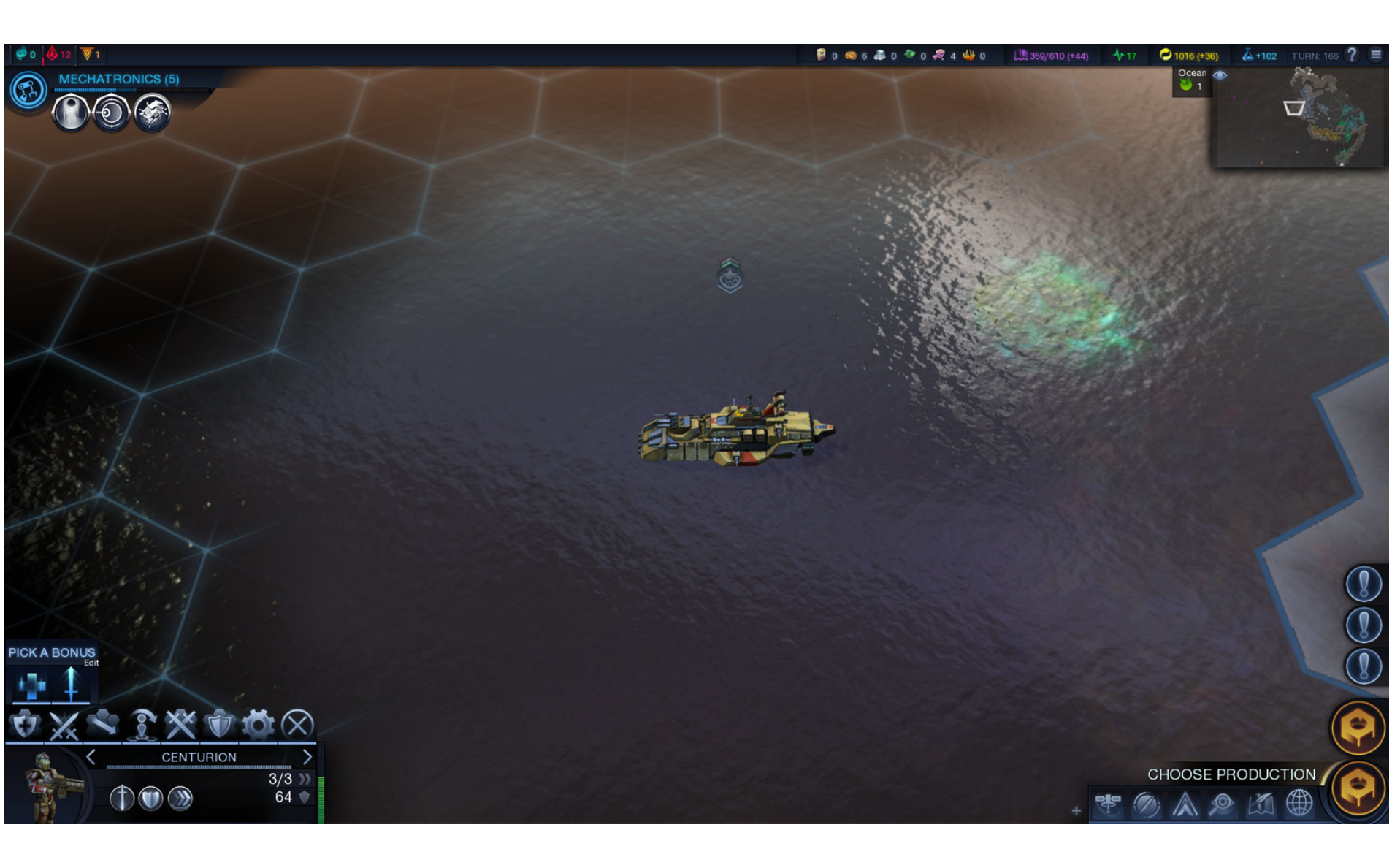
Mountains are upthrusts of terrain, impossible for non-flying units to move through. Craters are the result of meteor strikes on the surface of the planet. Neither is particularly helpful for your colony, save as a barrier to movement by enemy units.

As with canyons, you should eye difficult terrain like this as an opportunity. Your cities near mountains and craters won't develop as well (because these tiles have little resource value), but you can wall off areas of ingress into your empire by settling and defending these awkward spots.

For maximum defensive power, settle on the far side of a river while geographical barriers like mountains prevent access to your city from one or more directions. Enemies will hate you and have a miserable time pounding through your defenses.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food 0
- Mountains and craters are impassable except to air units.

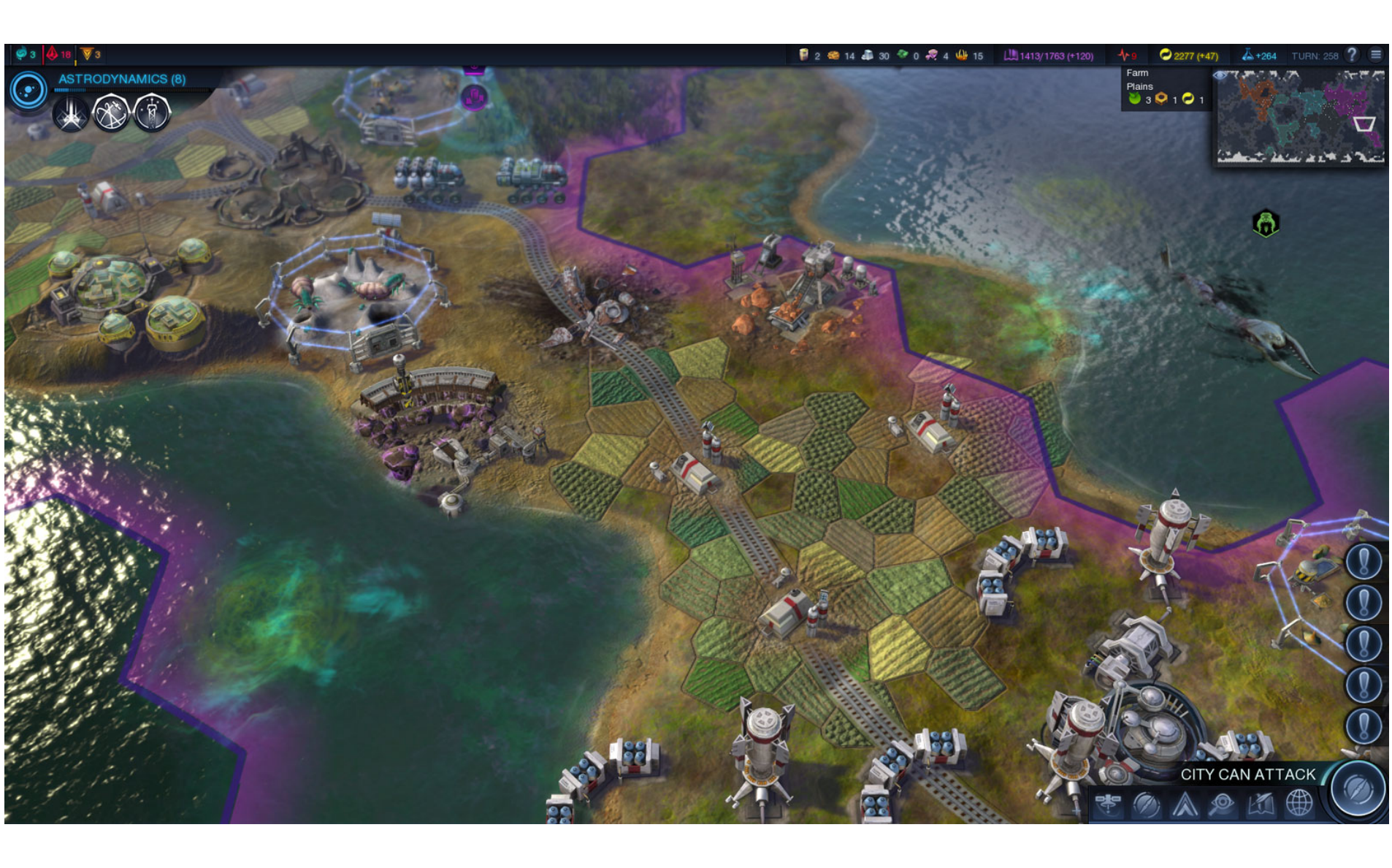
OCEAN



Ocean hexes are deep-water hexes. They provide Food to a city. Construct a water refinery as soon as you can if your city is heavily surrounded by ocean tiles. These buildings raise the resource value of such tiles by a huge factor and allow coastal cities to thrive much sooner than they would otherwise.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Oceans are only useful for Food and Energy once the nearby city has the proper Technologies to access them. Only naval, air, hover, or embarked units may enter this kind of tile.

PLAINS

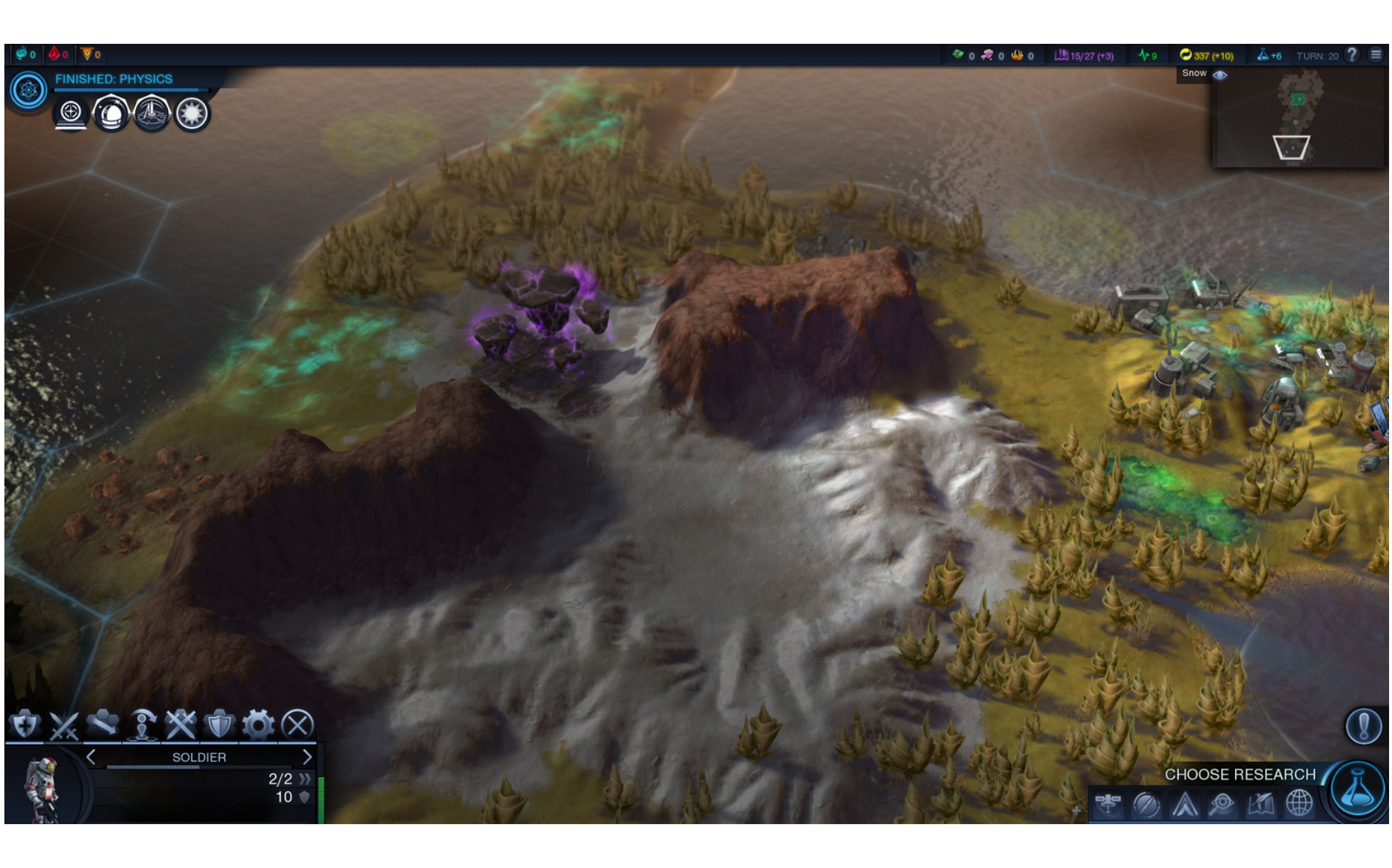


Plains provide a mix of Food and Production to a nearby city. A city surrounded by plains grows more slowly than one in grassland, but it will be more productive.

As with all easy terrain, you must defend yourself carefully when you settle out in the plains. Enemies can sweep through quickly and comfortably with their armies. Stop them at range when the territory is harsher, or keep a strong military near your city so that they can defend it with their lives.

- **Food**: 1
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

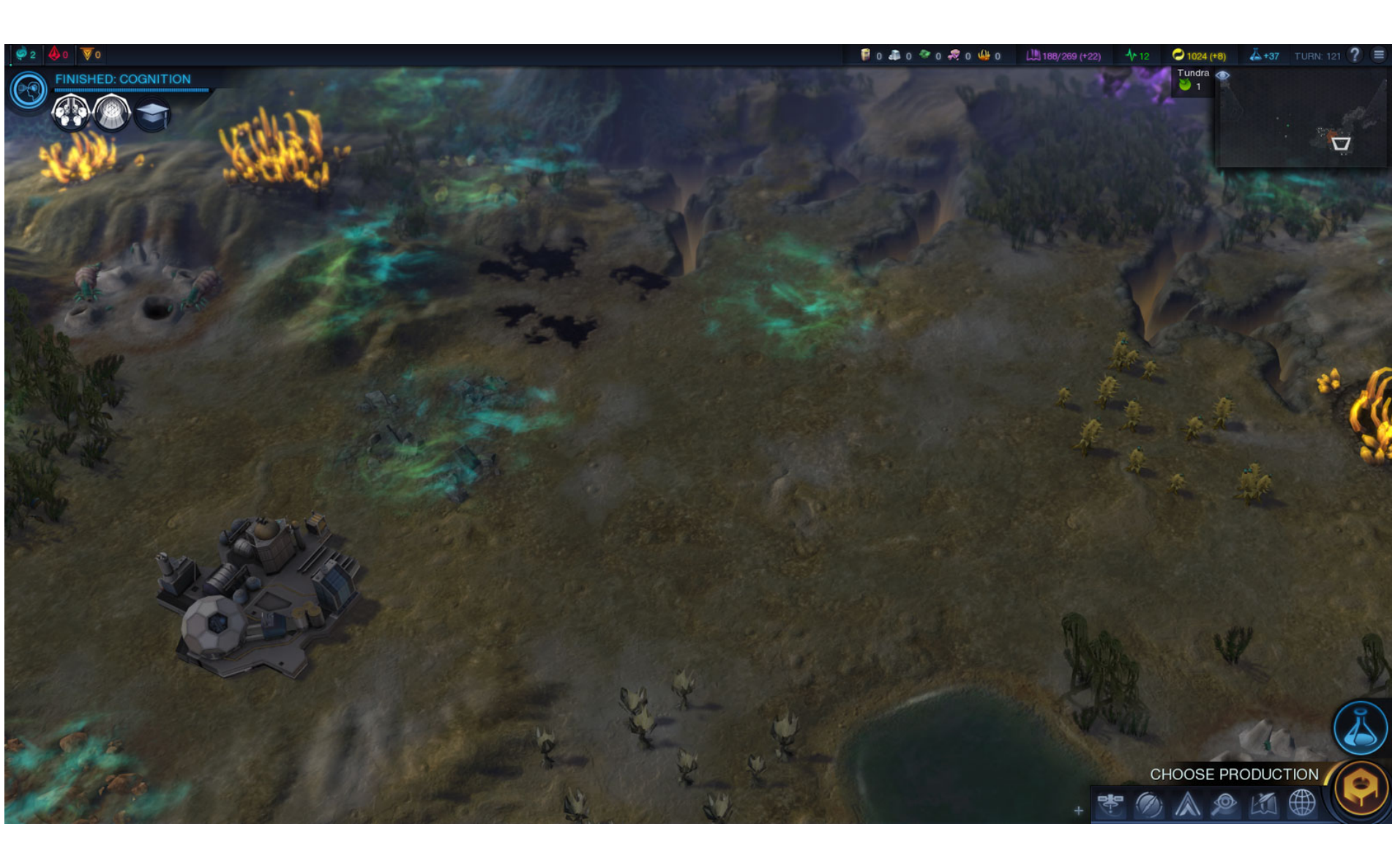
SNOW



Like desert, snow is relative unproductive, with no Food or Production benefit to a nearby city. Of course, a snow hex might contain a useful resource, but otherwise, it is just cold and barren.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

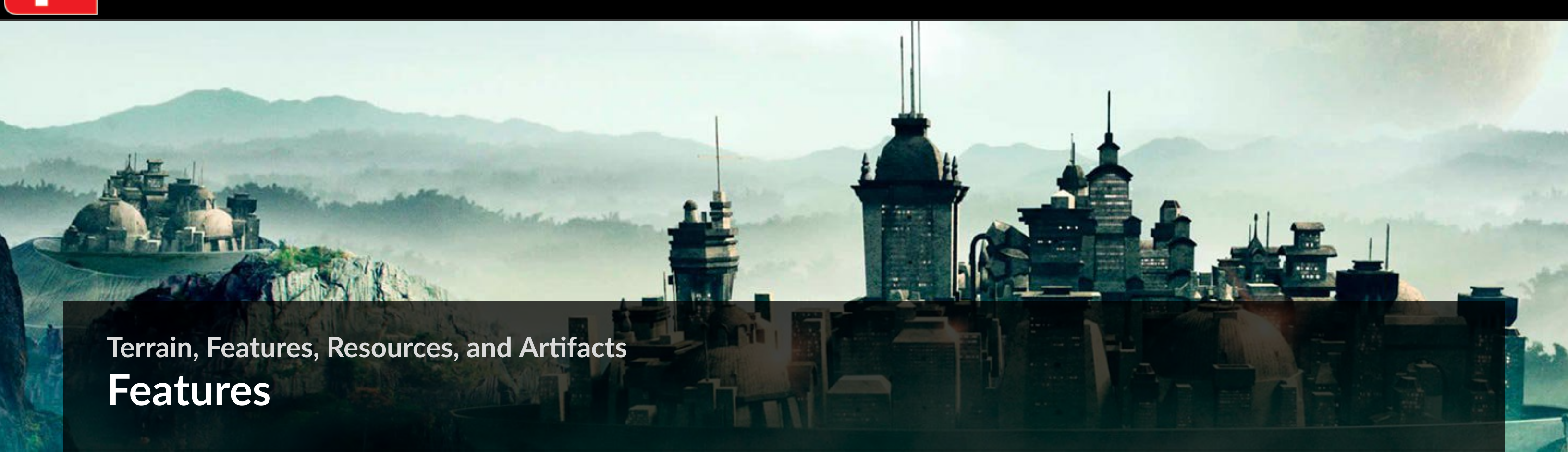
TUNDRA



Tundra is the semi-frozen land found in the planet's colder climates. It's less useful than plains or grassland but slightly better than desert and snow. Nobody will build cities in the tundra unless they're desperate for resources[md]or they've got nowhere else to go.

Later in the game, when you discover mass digesters, you begin to get more benefits from tundra. These buildings help you use tundra tiles effectively, so a nation that is close to large stretches of tundra should beeline toward organic Technology.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

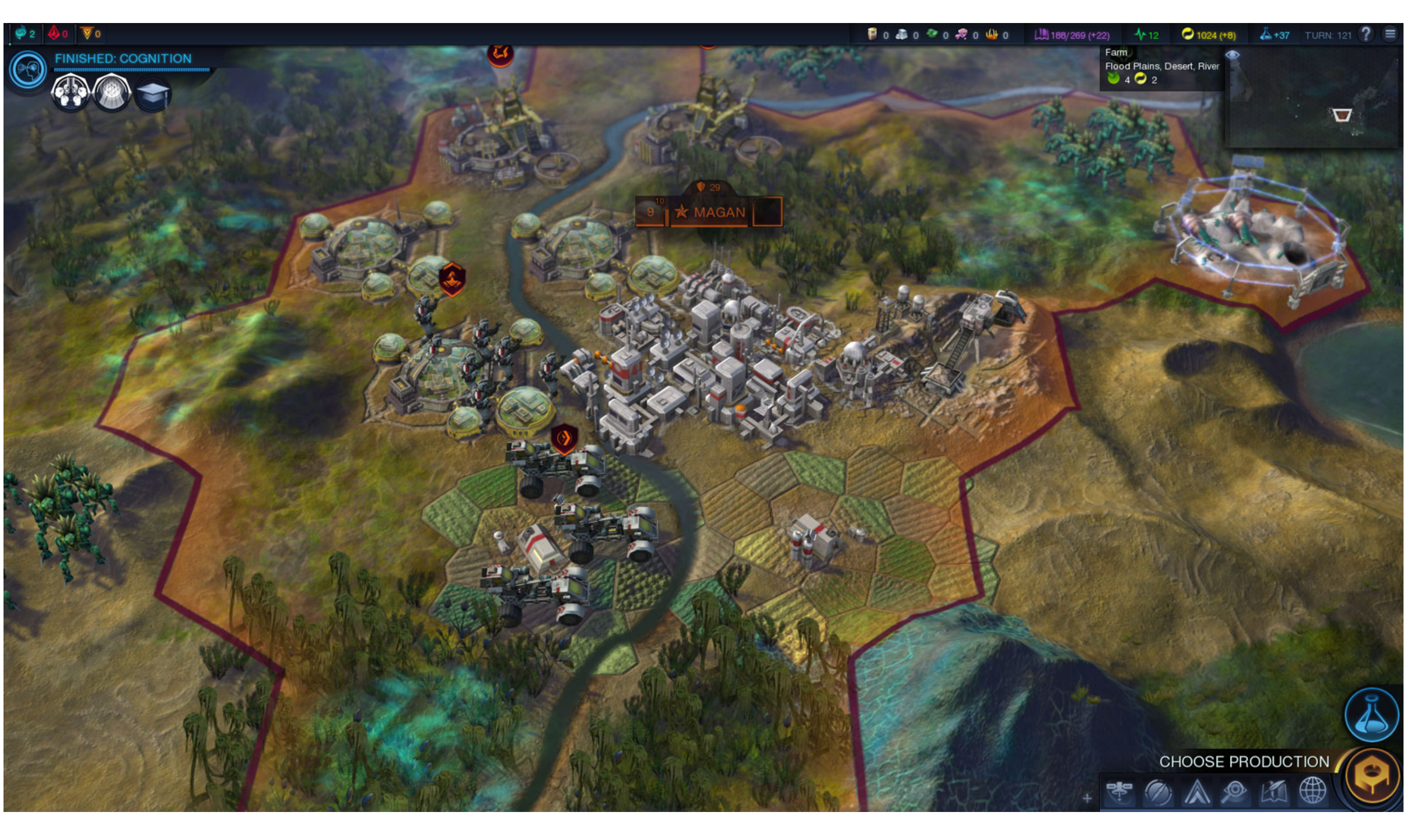


Terrain, Features, Resources, and Artifacts

Features

Features are elements of terrain or vegetation that appear in a hex, atop the hex's terrain. Think of these as modifiers for the base tile underneath. Features modify a hex's productivity and might also alter the amount of Movement Points (MPs) a unit expends when entering the hex. Features may also provide defensive combat bonuses or penalties to a unit occupying the hex.

FLOOD PLAIN

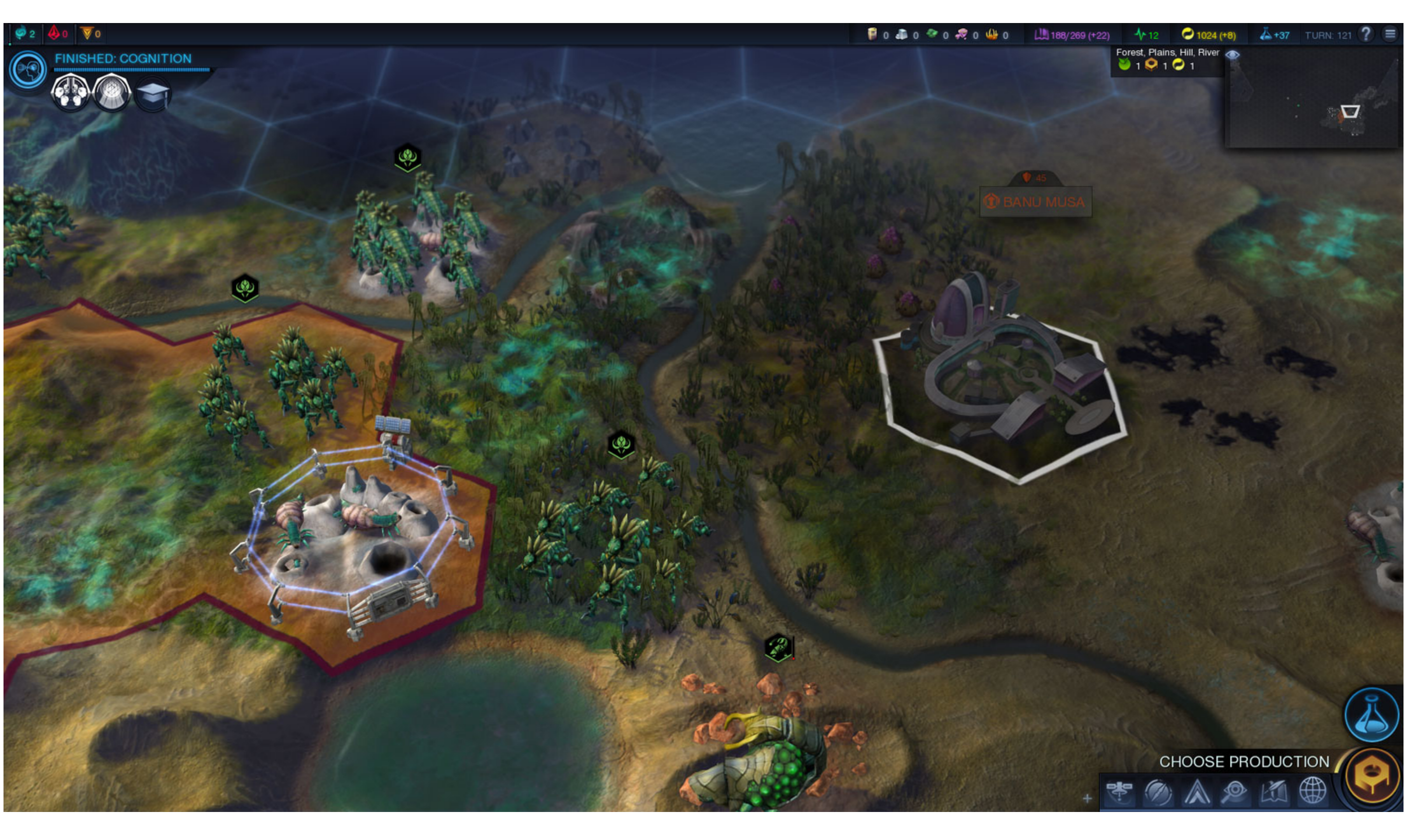

FINISHED: COGNITION
Farm
Flood Plains, Desert, River
MAGAN
CHOOSE PRODUCTION

Flood plains are low-lying areas adjacent to rivers. Each year, the river floods, thus providing natural irrigation and rich nutrients to the adjacent land. This makes flood plains fertile and the most productive farmland possible.

If you're looking for a high-growth city, settle along flood plains, and reap the benefits of large Food bonuses. Compound this with buildings that generate Food and internal trade routes, as well. This catapults your new city into a higher population and helps it start producing better buildings and more resources much sooner than it would otherwise.

- **Food**: 2
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: -10%
- **Movement Cost**: Food0
- Food1

FOREST


FINISHED: COGNITION
Forest, Plains, Hill, River
BANU MUSA
CHOOSE PRODUCTION

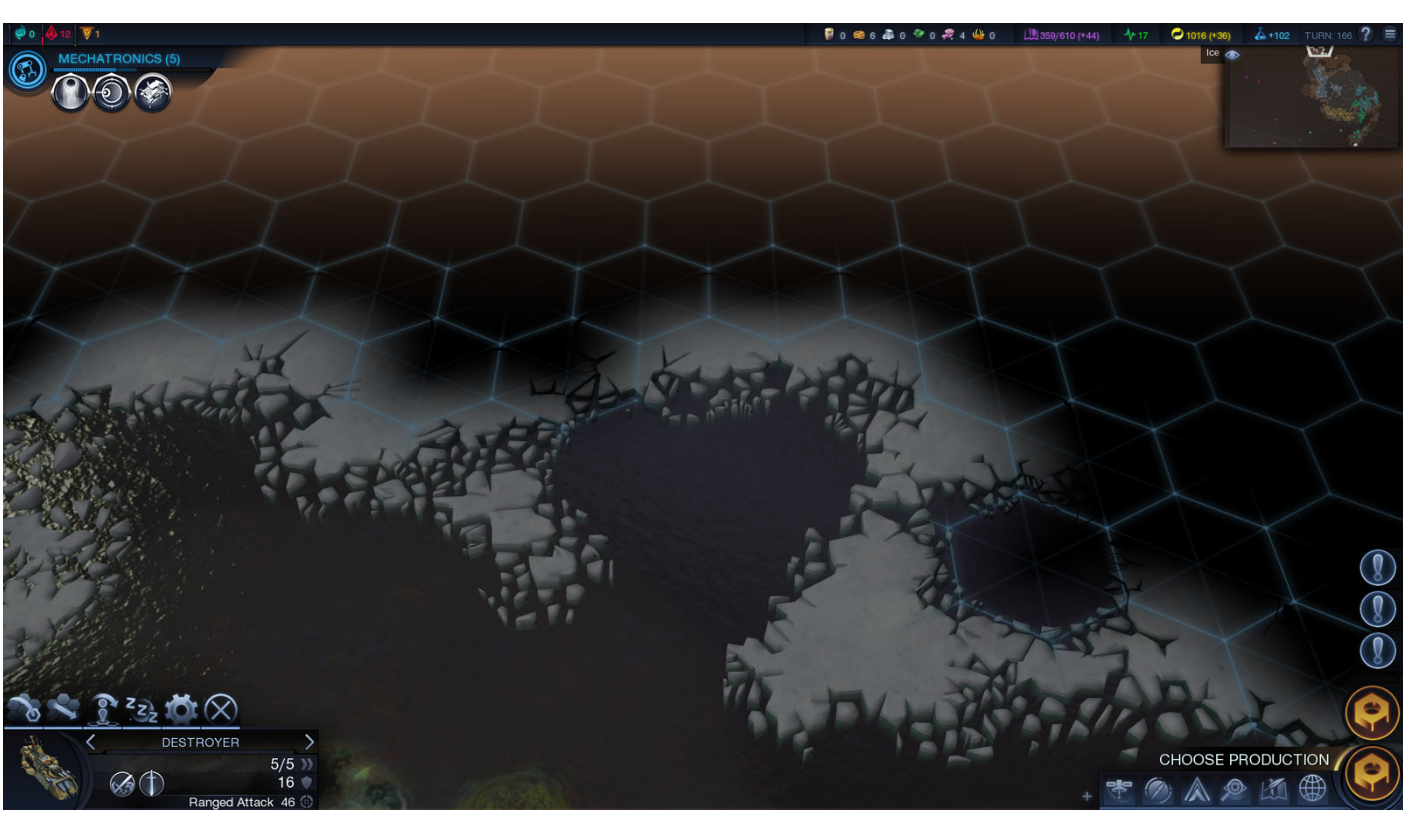
On Old Earth, forests were a great source of bounty, providing wood for fire, tools, and shelter, as well as homes to many animals used for sustenance and clothing through the ages. While not as critical for survival on this planet, native forests still supply Food and raw materials for Production.

If you think that your territory is safe from invasion, cut down forests for the temporary bonus to Production. When enemies are close, it's wiser to leave forests standing and deploy melee units in them to exploit their defensive advantages.

- **Food**: 1
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food0

Tiles with forests covering them always yield 1 Food and 1 Production, regardless of the underlying terrain type.

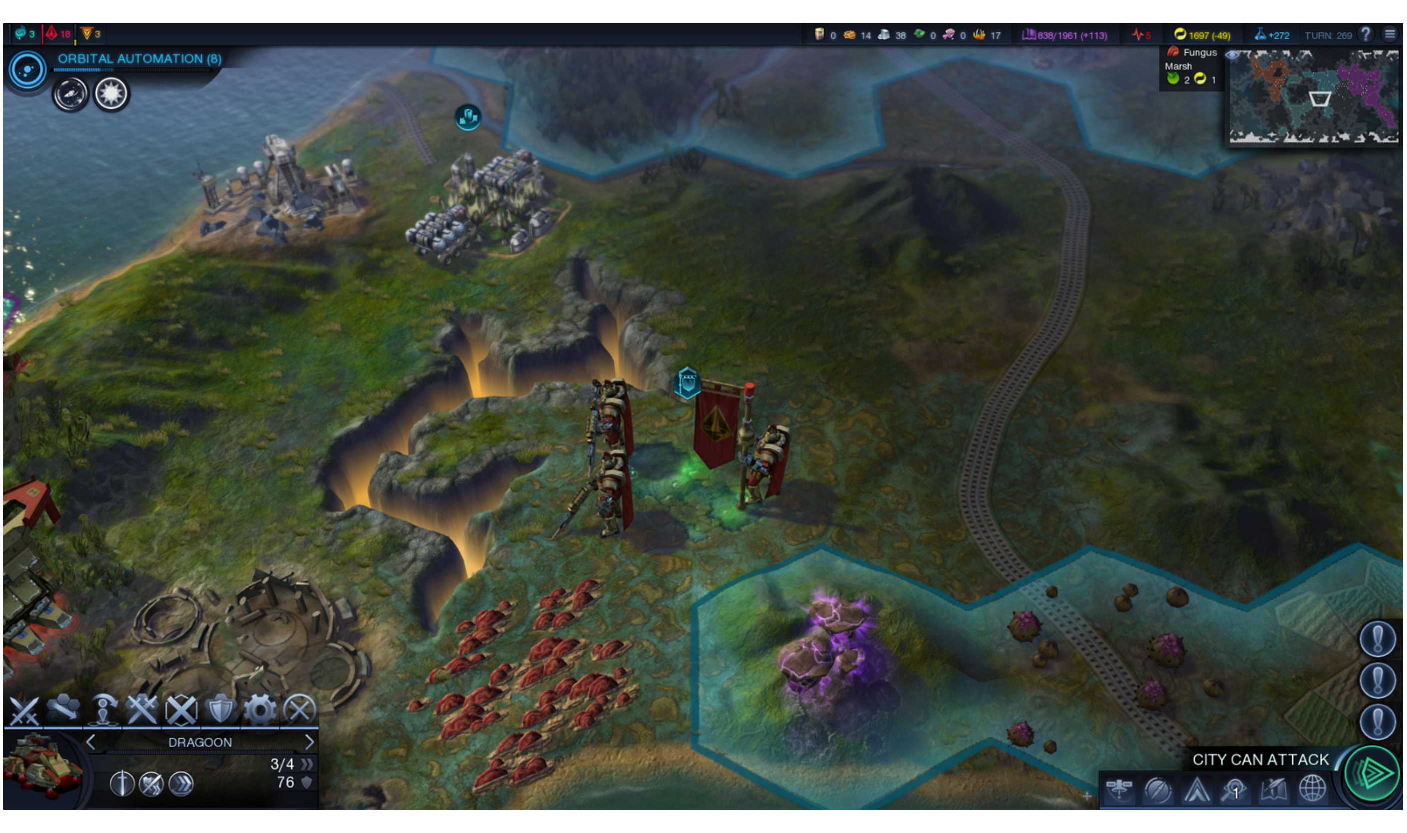
ICE


MECHATRONICS (5)
Ice
DESTROYER
5/5
16
Ranged Attack 46
CHOOSE PRODUCTION

Ice is just ice, and it's almost entirely useless to civilization. It is impassable (except to air and hover units) and provides no benefits.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food0
- Food1

MARSH

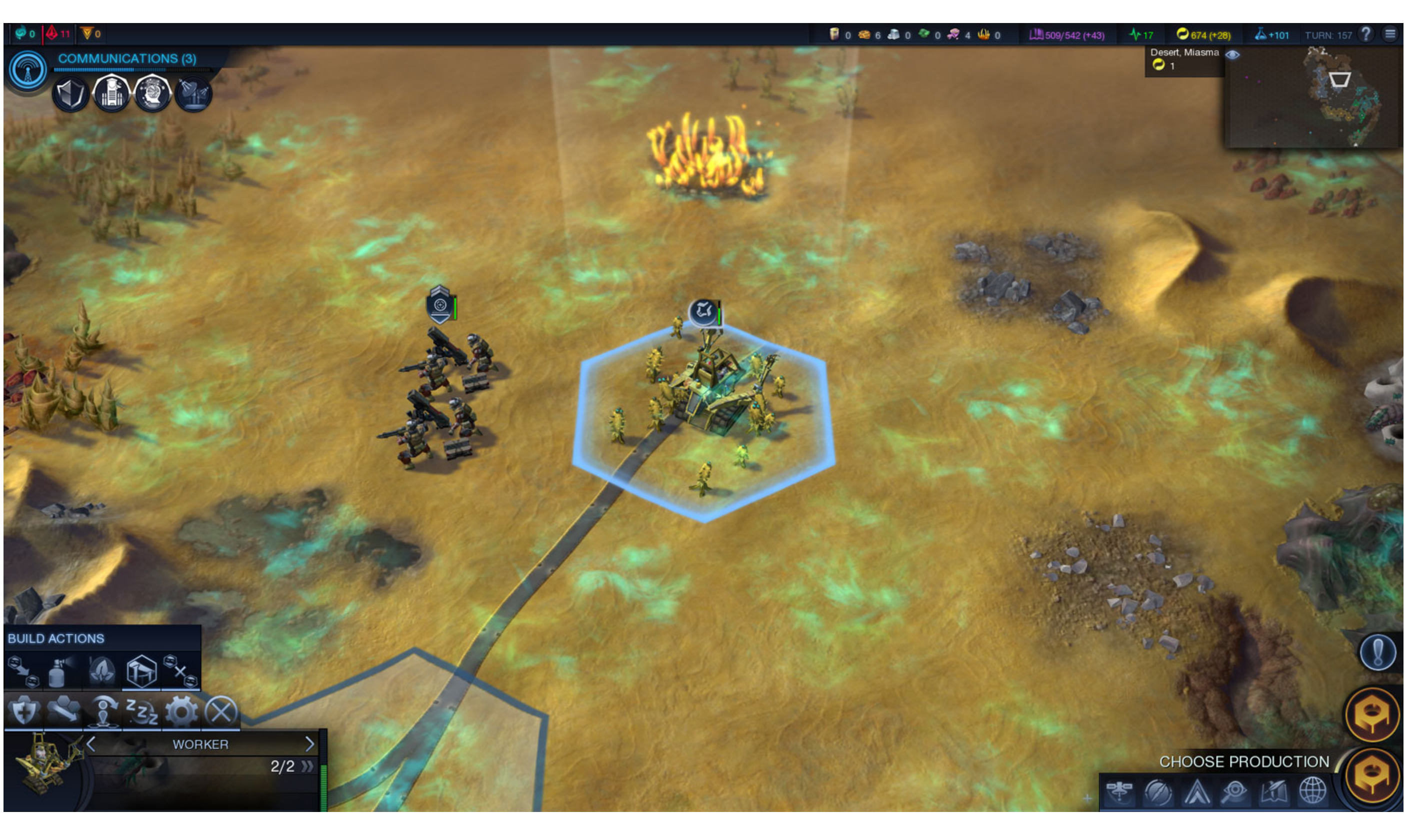

ORBITAL AUTOMATION (8)
Fungus
Marsh
DRAGOON
3/4
76
CITY CAN ATTACK

Although rich in biodiversity, marshes have little to offer a growing colony. You can drain or farm marshes to increase their yield, but they are difficult to move through. Note that military units in marshes receive a significant penalty when attacked.

Avoid settling near marshland unless you have a surplus of workers ready to develop that area. If you have the workers to spare, go ahead and rush through these tiles to make them more productive for your city.

- **Food**: -1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: -15%
- **Movement Cost**: Food0

MIASMA

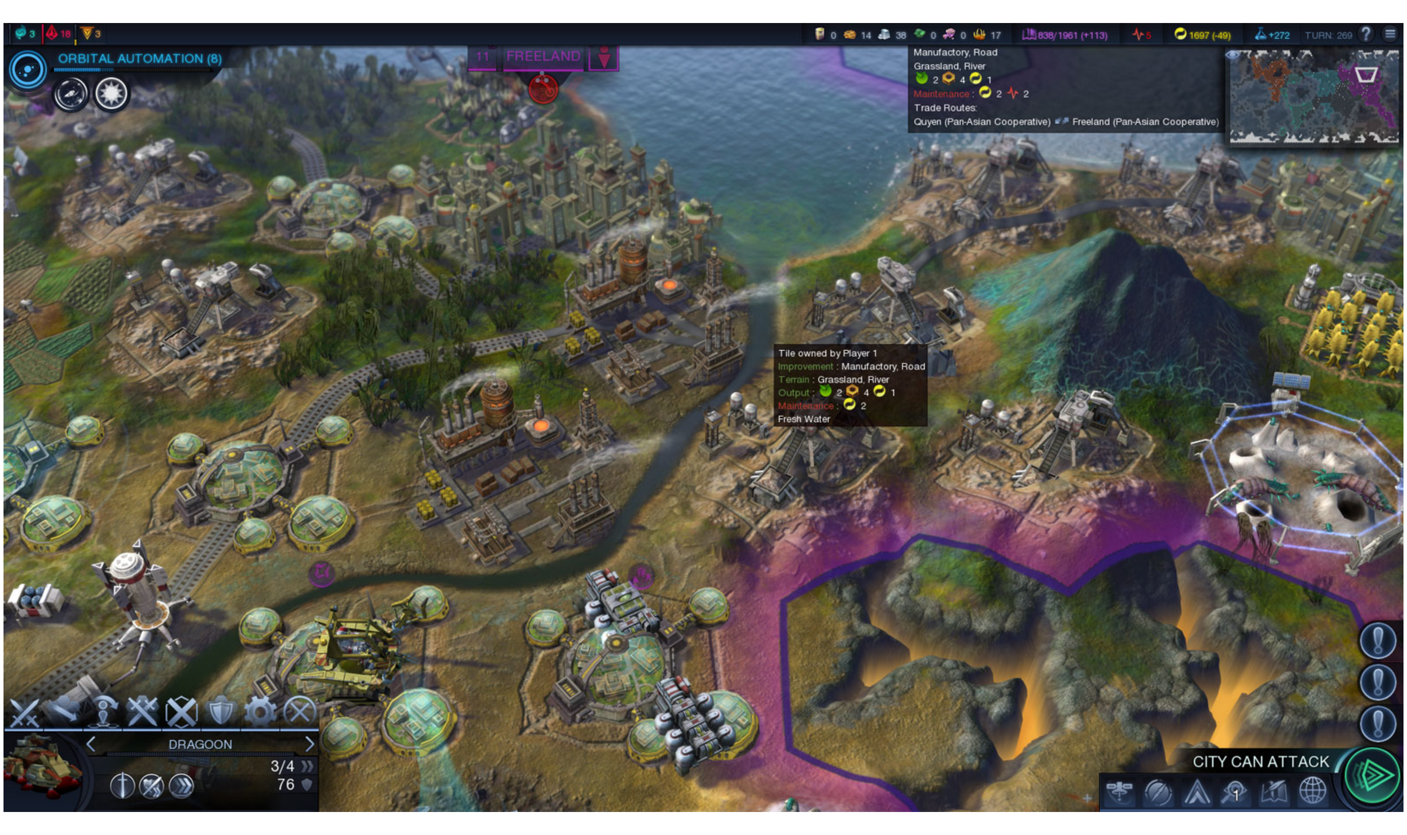

COMMUNICATIONS (3)
Desert, Miasma
BUILD ACTIONS
WORKER
2/2
CHOOSE PRODUCTION

Miasma is a terrain feature that can coexist with any other feature and on any type of terrain except snow and ocean. This is an "infestation" of the tile with virulent spores that are actively hazardous to humans and their machines until the spores are removed or certain Technology is adopted.

Any unit that ends its move on a tile with miasma suffers 10% of their maximum Health in damage. Workers get Technology to protect themselves fairly early on, making it safer for them to stop and develop terrain with miasma. Other units must develop far into the right side of the tech web to remove this problem. (The right side of the tech web is where you find many of the Harmony Technologies).

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food0
- Food1

RIVERS

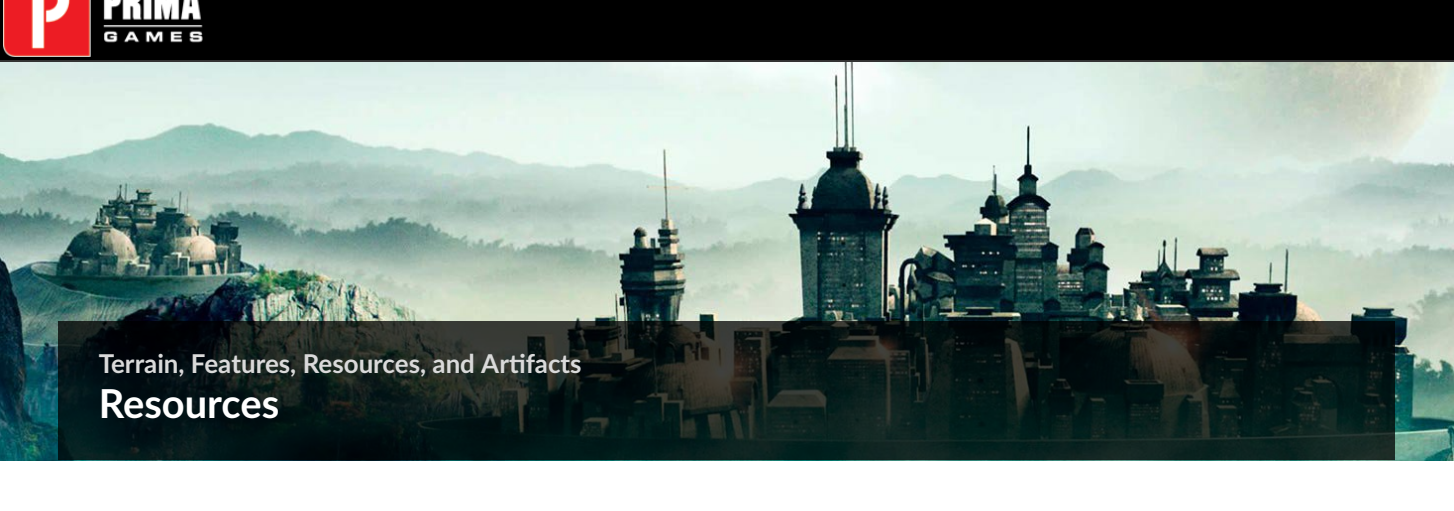

ORBITAL AUTOMATION (8)
FREELAND
Manufactory, Road
Grassland, River
Maintenance:
Trade Routes:
Quyen (Pan-Asian Cooperative)
Freeland (Pan-Asian Cooperative)
Tile owned by Player 1
Improvement : Manufactory, Road
Terrain : Grassland, River
Output :
Maintenance :
Fresh Water
DRAGOON
3/4
76
CITY CAN ATTACK

Traditionally, cities have been built along rivers, and for good reason. Rivers provide irrigation, improving the farmland around the city. They also serve to protect a city, as it is difficult to mount an assault against a city across a river.

Rivers run along the sides of the tiles rather than through them, so rivers provide their benefits to all tiles/units adjacent to them. They grant +1 Energy to all adjacent tiles.

When attacking across a river, the attacking unit gets a 20% penalty to its Combat Strength. Units use all of their remaining Movement Points when crossing a river. There is, however, no additional cost for crossing a river if a road or magrail passes over the river.

Michael Note: Currently roads/magrails do not prevent this penalty. I suspect that's a bug rather than a feature. Please remove the above text later if rivers still stop movement even while bridged.



Terrain, Features, Resources, and Artifacts

Resources

Resources are found on tiles on the map and provide specific benefits, either in their natural state or when improved. Some strategic resources are revealed only when a specific Technology is researched. Any resource must be within your territory, free of enemy units, and worked by a city to provide its benefit.

Resources are sources of Food, Energy, Production, Science, or Culture, or they provide other special bonuses. To a large degree, your colony's wealth and power will be determined by the number and variety of resources you control. To use a resource, it must be within your colonial borders, and you must construct the appropriate "improvement" in that hex. (For example, you must construct the Plantation improvement to get the benefit from a Fiber resource.)

There are two different kinds of resources in *Civilization: Beyond Earth*: basic and strategic. Each provides yield benefits to nearby cities, and strategic resources have additional important benefits.

While you may not have access to every kind of resource within your own borders, you can trade some of your resources with other leaders for ones you may not possess.

Basic resources provide yield to the city that works them. Their main importance is to facilitate city specialization and improvement. In most cases, basic resources must be improved to provide a yield bonus, but a few provide low yields even in their "raw" state.

Basic Resources

ALGAE

ORBITAL AUTOMATION (8)
DRAGOON
CITY CAN ATTACK

Algae makes coastal tiles much better for growth. Develop them as soon as you can spare your worker to get the job done. Combine this with a water refinery for maximum benefit from your water tiles.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

BASALT

COMMUNICATIONS (2)
CITY CAN ATTACK

Basalt tiles get you a heavy amount of Production on tiles that are already pretty good for that resource. Develop these to give your city's construction efforts a major boost.

- **Food**: 0
- **Production**: +1
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

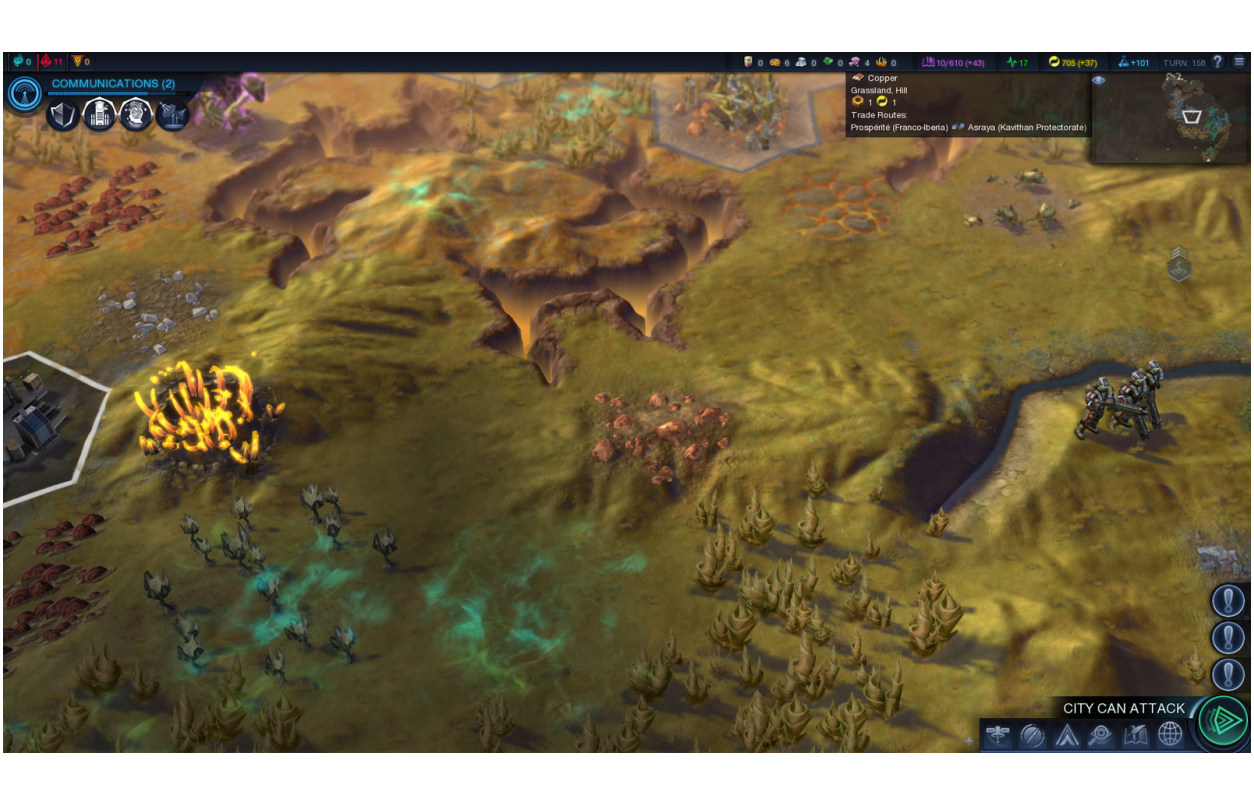
CHITIN

COMMUNICATIONS (2)
CITY CAN ATTACK

Establish cities near Chitin whenever possible. The boost to Food is ideal for getting your city up and running, and Paddocks get some additional benefits later in the tech tree, so that's a nice benefit, as well.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

COPPER



You won't see Copper too often, but it's out there. Make some extra Energy with it to keep your city profitable. This isn't one of the more essential resources to snag, but it's helpful.

- **Food**: 0
- **Production**: 0
- **Energy**: +1
- **Culture**: 0
- **Science**: Food0
- Food1

CORAL

COMMUNICATIONS (2)
CITY CAN ATTACK

Don't overlook Coral! It offers a Culture boost at almost no cost whatsoever. This is critically important in the early game, when faster virtues make a huge difference in your ability to specialize your nation and expand successfully.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: +1
- **Science**: Food0
- Food1

FIBER

COMMUNICATIONS (2)
CITY CAN ATTACK

Fiber gives you extra Production, and it's very useful for getting early buildings off the ground to kick-start a new city.

- **Food**: 0
- **Production**: 1
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

FRUIT

COMMUNICATIONS (2)
PROSPERITE
CITY CAN ATTACK

Fruit is great. It's simple and easy. Develop this for added Growth opportunities for your city.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

FUNGUS

COMMUNICATIONS (2)
CITY CAN ATTACK

Fungus tastes great and is filling, too. Cities founded near it can get their Growth going without nearly as much effort.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

GOLD

ALIEN SCIENCES (5)
COMBAT ROVER
A UNIT NEEDS ORDERS

Another potential resource for free Culture! Get Gold whenever you can.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: +1
- **Science**: Food0
- Food1

RESILIN

COMBAT ROVER
A UNIT NEEDS ORDERS

Resilin gets you a nice little Production bonus, perfect for starting cities.

- **Food**: 0
- **Production**: +1
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

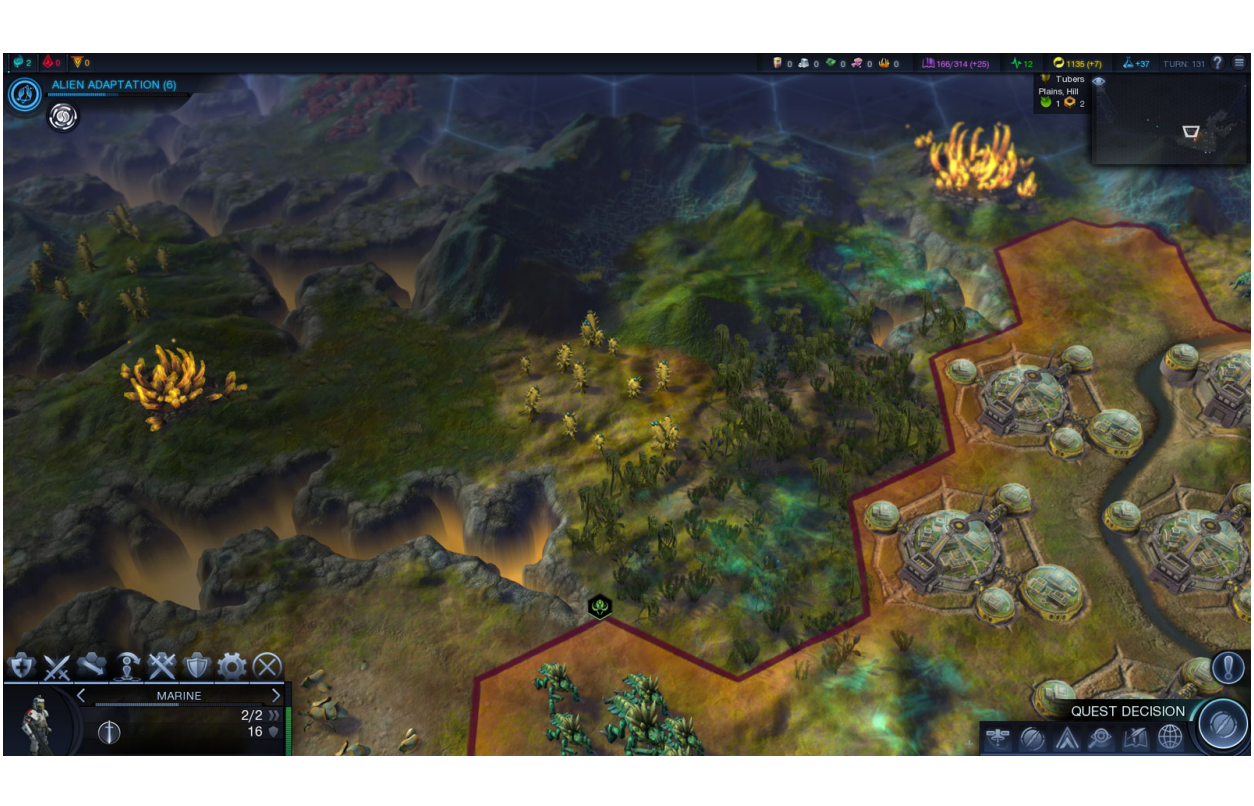
SILICA

COMMUNICATIONS (2)
CITY CAN ATTACK

As before, Science bonuses of this size mean the most in the very early game. If you have Silica in your city's area of influence, get a worker out to it before starting on any other improvements.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

TUBERS



Tubers are one of the least important basic resources. They're still better than nothing, but don't prioritize them over other things that have higher bonuses to develop.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Strategic Resources

Strategic resources are required to produce and supply certain units and are constrained by doing so. Their main role is in building and maintaining an advanced military. The number of specialized units is limited by the quantity of the improved resource; thus, the number of Harmony xenomorph units you can have is limited to the amount of Xenomass you have. Strategic resources must always be improved to count toward the global supply of their type of resource.

Strategic resources often require a Technology to be able to improve them, and some even require a Technology to even be seen. Strategic resources do not provide any bonus yield until they are improved.

FIRAXITE

ALIEN ADAPTATION (8)
MARINE
QUEST DECISION

Firaxite is the most important resource for Supremacy players. It's used in all of their high-end buildings and units. Make sure to track down Firaxite early in the game so that you can settle cities near good sources of this mineral. You won't be able to use them until later, but it's worth the wait (and you won't have to trade or fight wars to get it when the time comes).

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Firaxite Mine

Units Requiring Resource: Supremacy units

FLOATSTONE

QUEST DECISION

Floatstone is the resource for Purity players. It's used for their buildings and units. Settle your cities near Floatstone deposits if you're going in the direction of Purity. This is also wise if you have nearby enemies that are likely to go in that direction. Denying them Floatstone limits some of their progress; if they end up not being a threat to you, trade with them and give up some of the minerals while making the most profit you can.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Floatstone Quarry

Units Requiring Resource: Purity units

GEOTHERMAL ENERGY

COMMUNICATIONS (2)
CENTURION
CITY CAN ATTACK

Geothermal Energy is good to develop for your nation's finances, but that's not all that it's good for. This resource is used when you construct certain wonders. It's not as essential as one of the major affinity resources, but you won't want to be tapped out on it. Make sure to have a standing supply so that you don't have to delay major construction and lose the chance at a nice wonder.

- **Food**: 0
- **Production**: 0
- **Energy**: 2
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Geothermal Well

Units Requiring Resource: None

PETROLEUM

COMMUNICATIONS (2)
LANCER
CITY CAN ATTACK

Orbital units use Petroleum. You gain large benefits from having orbitals over your territory; they're great for defense, bonus resources, and other strange activities (like spreading or getting rid of miasma). Develop a large supply of Petroleum quickly as you approach the midgame so that you can pop out orbitals like crazy. She who controls the skies controls the battlefield.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Petroleum Well

Units Requiring Resource: Mechanical and orbital units

TITANIUM

CIVIL SUPPORT (5)
PROSPERITE
BUILD ACTIONS
WORKER
QUEST DECISION

Titanium is also used for many orbitals, so keep it in good supply. Purity players must be even more assertive about getting Titanium because they have special military units that also rely on it.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Mine

Units Requiring Resource: Air and orbital units

XENOMASS

COMMUNICATIONS (2)
LANCER
CITY CAN ATTACK

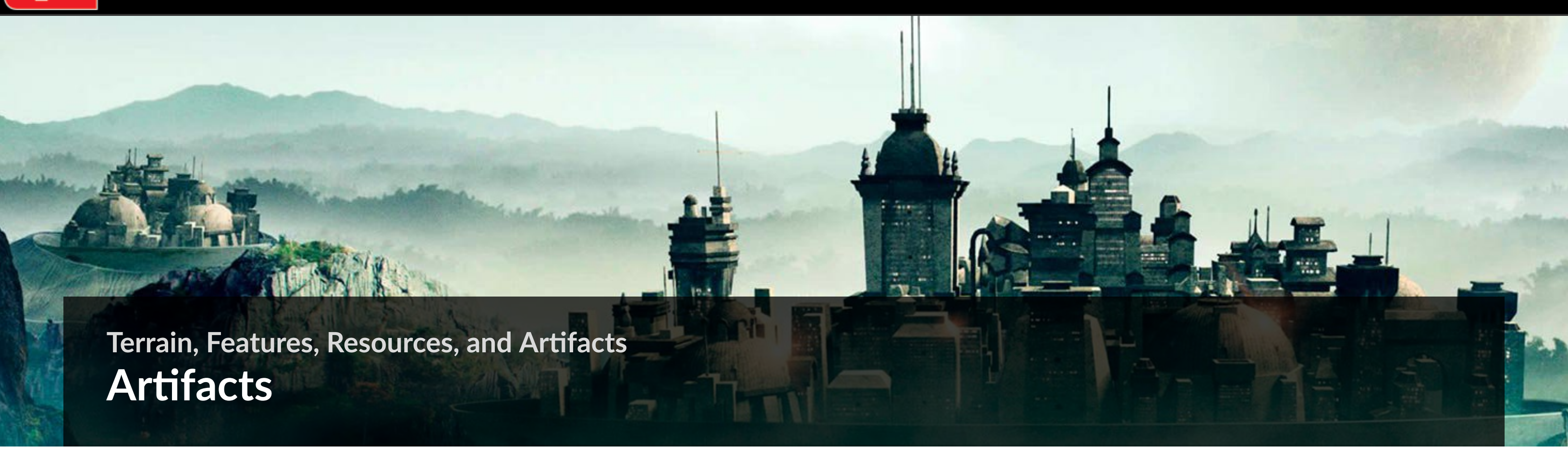
Xenomass is the strategic resource for Harmony players. They practically live on the stuff, and their unique units are even more essential to military survival. (The base Harmony military units are slightly harder to use compared with Supremacy and Purity variants.)

Because of this, Harmony players must scout, obtain, and secure their Xenomass supplies as a primary goal of their nations. Enemies of Harmony players should note and exploit this by denying Harmony players access to terrain with any substantial amount of Xenomass.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Xenomass Well

Units Requiring Resource: Harmony units



Terrain, Features, Resources, and Artifacts

Artifacts

Artifacts are items that appear on terrain over time; some start there at the beginning of the game, and others spawn during various events. These artifacts provide no benefit on their own but allow explorers to perform an expedition, which uses the artifact to provide a bonus. The explorer loses an expedition module once the expedition action is completed. If an explorer has no expedition modules remaining, they will no longer be able to perform expeditions until they visit a city that their player controls.

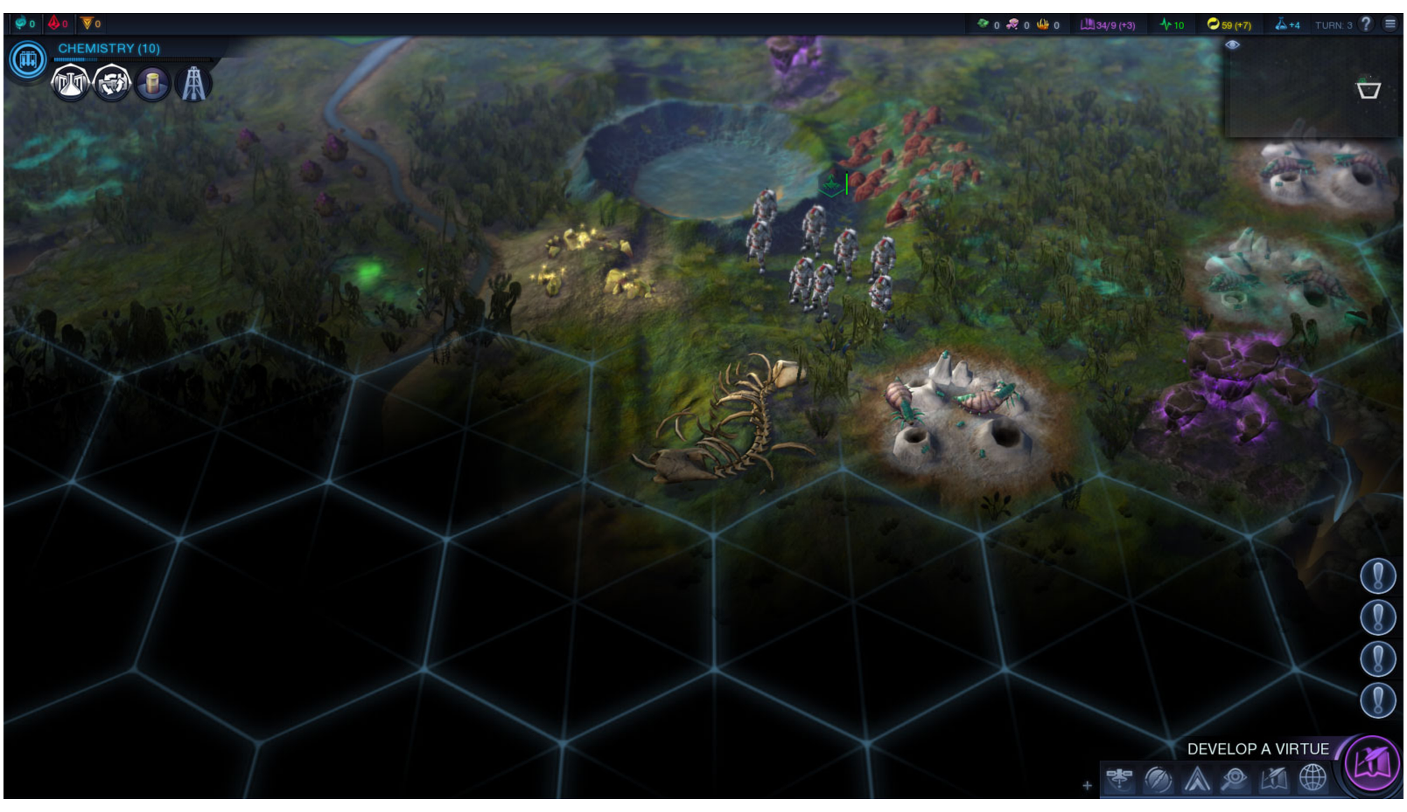
Beware! Working on expeditions while surrounded by miasma can be fatal to an explorer. Make sure that you have enough time to complete your expedition before your health is going to run out. If that's not possible, get a worker over there to remove the miasma before you begin your expedition (workers learn how to remove miasma once you master Alien Biology).

There are four types of artifacts: derelict settlement, crashed satellite, alien skeleton, and Progenitor ruins. Each provides one of several possible benefits, ranging from xenomorph units placed under your control, a one-time boost of Culture, Energy or affinity points, or progress toward a specific Technology.

Resource Pods

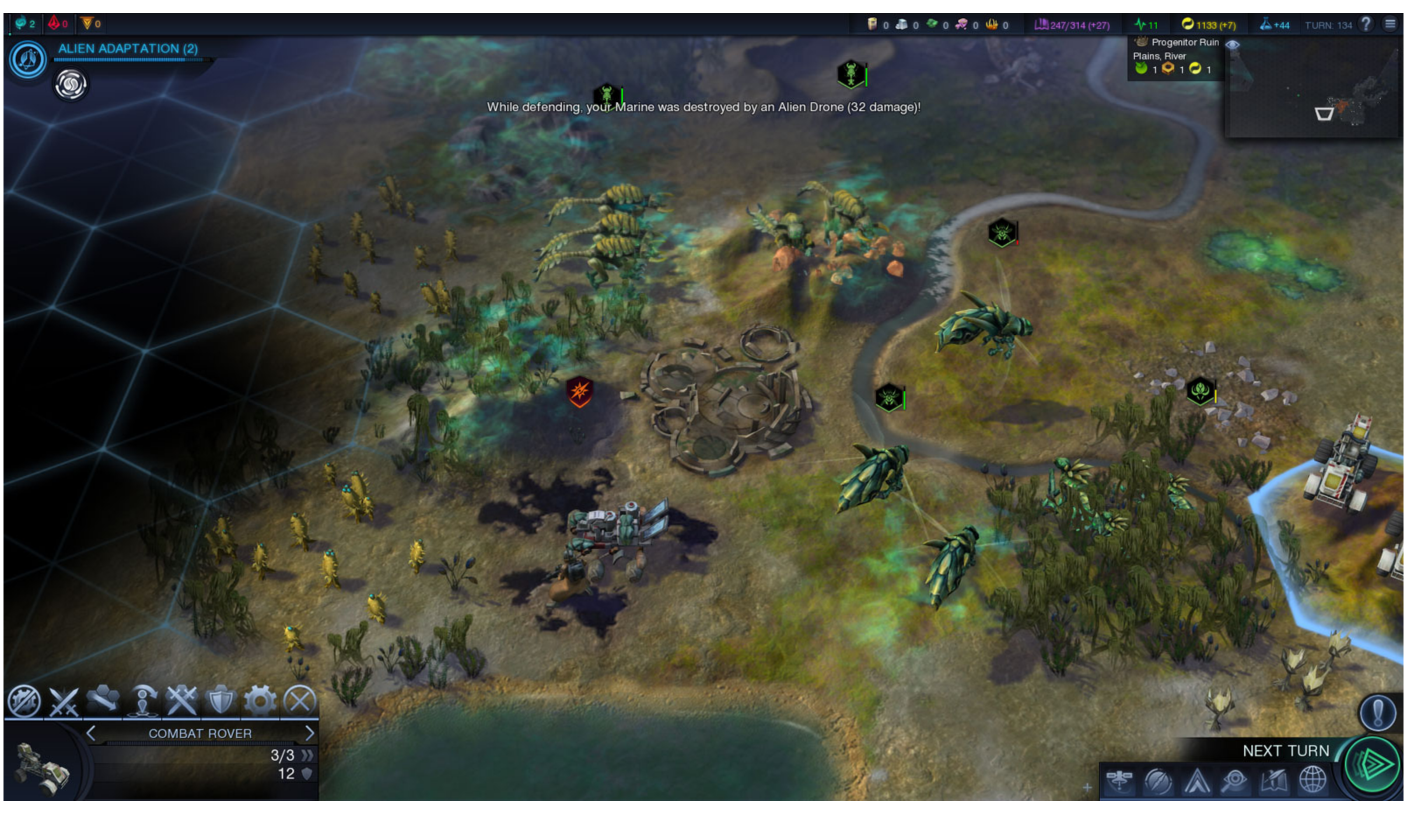
Resource Pods are locations on the map at the game start that provide a bonus to the player who reaches them first, and then are eliminated. Open these to get a minor boost to a given resource. Sometimes, you might also get a minor orbital out of them, which is always nifty!

ALIEN SKELETONS AND CAVES



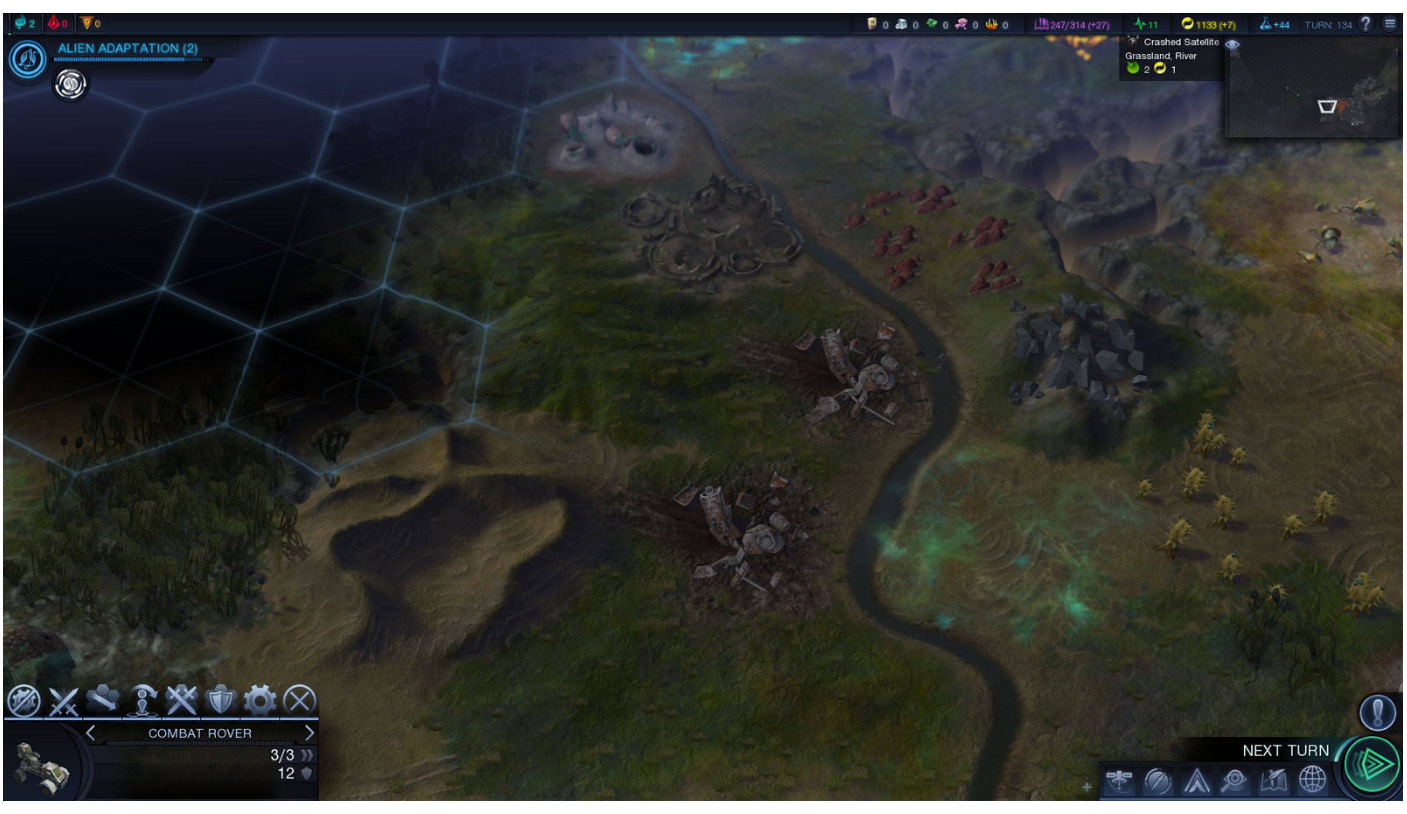
Alien skeletons are the remains of colossal xenomorphs. Once an expedition is completed on a tile containing this, the player might receive a large affinity increase or gain an alien unit under their control. Destroying alien nests has a tendency to create caves.

PROGENITOR RUINS


While defending, your Marine was destroyed by an Alien Drone (32 damage)!

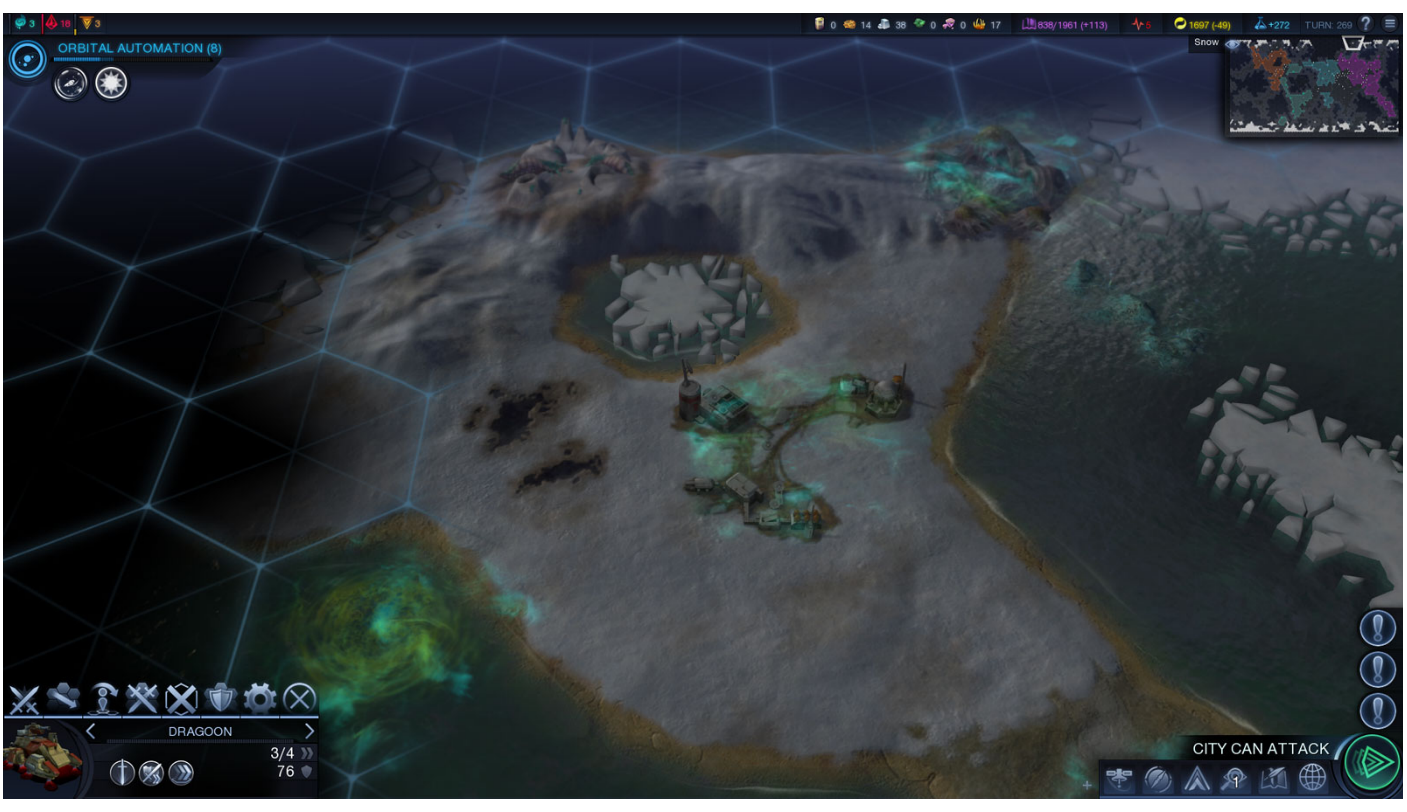
Progenitor ruins are the remains of structures left behind by a nigh-mythical alien race. Once an expedition is completed on a tile containing this, the player will receive either an affinity level increase or progress toward an advanced Technology.

CRASHED SATELLITES



Crashed satellites are the remains of orbitals that have deorbited and crashed back to the planet. Once an expedition is completed on a tile containing this, the player might receive a large Science or Production increase. Sometimes, these sites are formed when orbitals deorbit.

DERELICT SETTLEMENTS



Derelict settlements are the remains of earlier failed human colonies. Once an expedition is completed on a tile containing this, the player could receive a large Culture increase or gain extra population in their nearest city. Destroying stations sometimes causes them to become derelict settlements.

Research and Technology

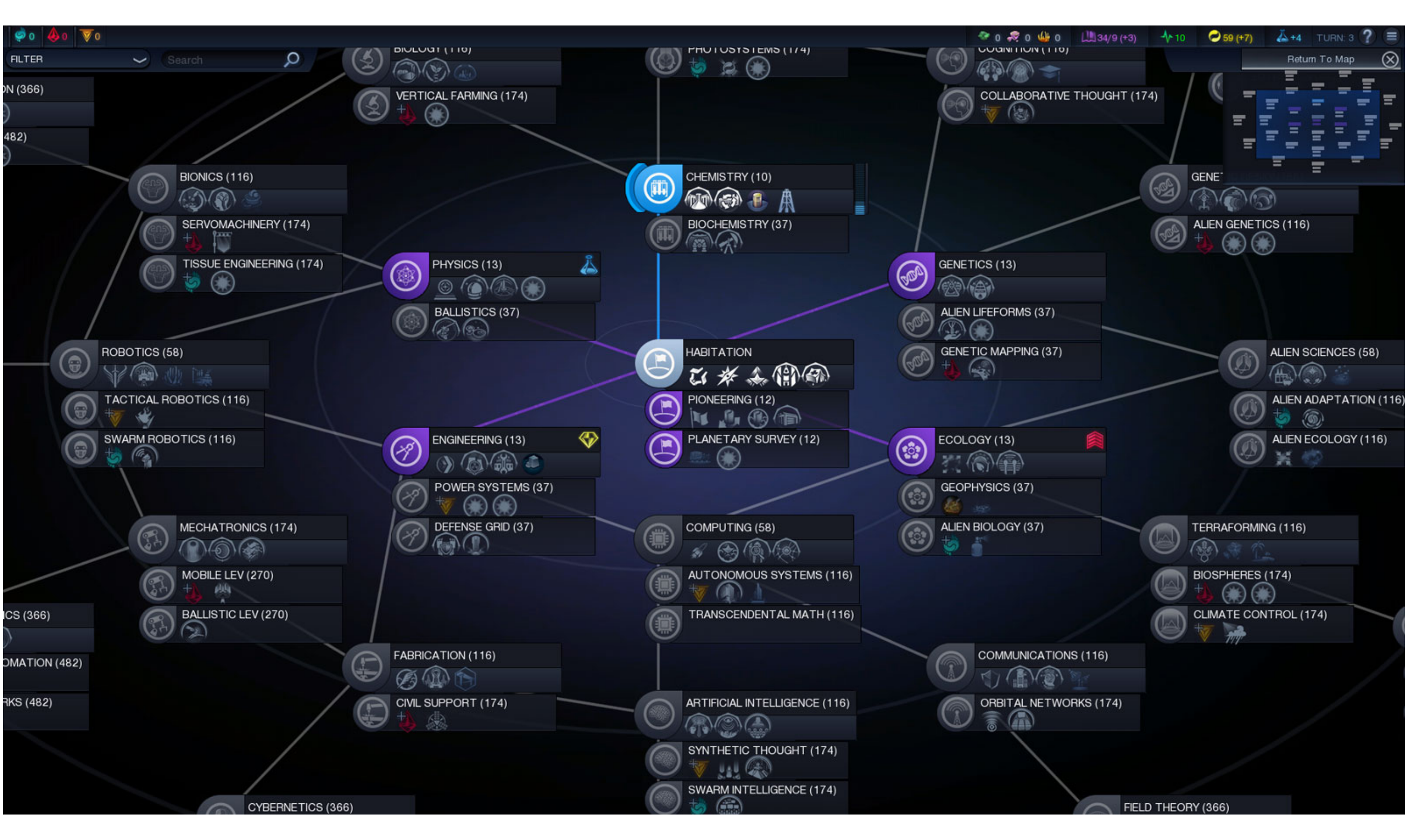
Overview

Civilization games are always heavily defined by their progression through the ages of technology. *Civilization: Beyond Earth* is no different in that, although you're going to be dealing with future tech instead of historical and modern technology. This chapter explains the basics of Research and then goes item by item through the tech web to show you what's possible in this system.

OVERVIEW

The biggest change between earlier *Civilization* games and this release is in the presentation and development of Technology. While the underlying style of Research is still to choose a specific tech and wait for your work to complete on it, there is no longer a semi-linear tree to develop. Instead, there is a web of Technology. You now are going to have many more choices each time you select your next Research goal. That's daunting at first, but it soon leads to a freedom that is very refreshing and exciting.

Take a look at the Technology web, and start to familiarize yourself with the items it lists. Each section of Technology is divided into three pieces. Up top, you get a branch. These are the core principles that you research as you head out from the center of the web. They grant buildings, wonders, and units so that your society becomes more advanced. However, you can develop them further by researching the two leaf techs that are underneath them. Leaf Technologies can't be researched until you have mastered the branch above them. Think of them as focused, applied Research, while the branches are more theoretical in nature.


FILTER
Search
Return To Map
VERTICAL FARMING (174)
COLLABORATIVE THOUGHT (174)
BIONICS (116)
SERVOMACHINERY (174)
TISSUE ENGINEERING (174)
CHEMISTRY (10)
BIOCHEMISTRY (37)
ALIEN GENETICS (116)
PHYSICS (13)
BALLISTICS (37)
GENETICS (13)
ALIEN LIFEFORMS (37)
GENETIC MAPPING (37)
ROBOTICS (58)
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ALIEN ADAPTATION (116)
ALIEN ECOLOGY (116)
ENGINEERING (13)
POWER SYSTEMS (37)
DEFENSE GRID (37)
ECOLOGY (13)
GEOPHYSICS (37)
ALIEN BIOLOGY (37)
MECHATRONICS (174)
MOBILE LEV (270)
BALLISTIC LEV (270)
COMPUTING (58)
AUTONOMOUS SYSTEMS (116)
TRANSCENDENTAL MATH (116)
TERRAFORMING (116)
BIOSPHERES (174)
CLIMATE CONTROL (174)
FABRICATION (116)
CIVIL SUPPORT (174)
ARTIFICIAL INTELLIGENCE (116)
SYNTHETIC THOUGHT (174)
SWARM INTELLIGENCE (174)
COMMUNICATIONS (116)
ORBITAL NETWORKS (174)
CYBERNETICS (366)
FIELD THEORY (366)

Each time you unlock a new branch, you can either start Research on the leaves beneath it or begin looking into any branches that are connected to it. This allows players to focus on specific areas of the web and prioritize the Research that they're doing. You can look for Technology that gives you the bonuses and items you need the most, and race after them instead of getting everything researched throughout the entire web.

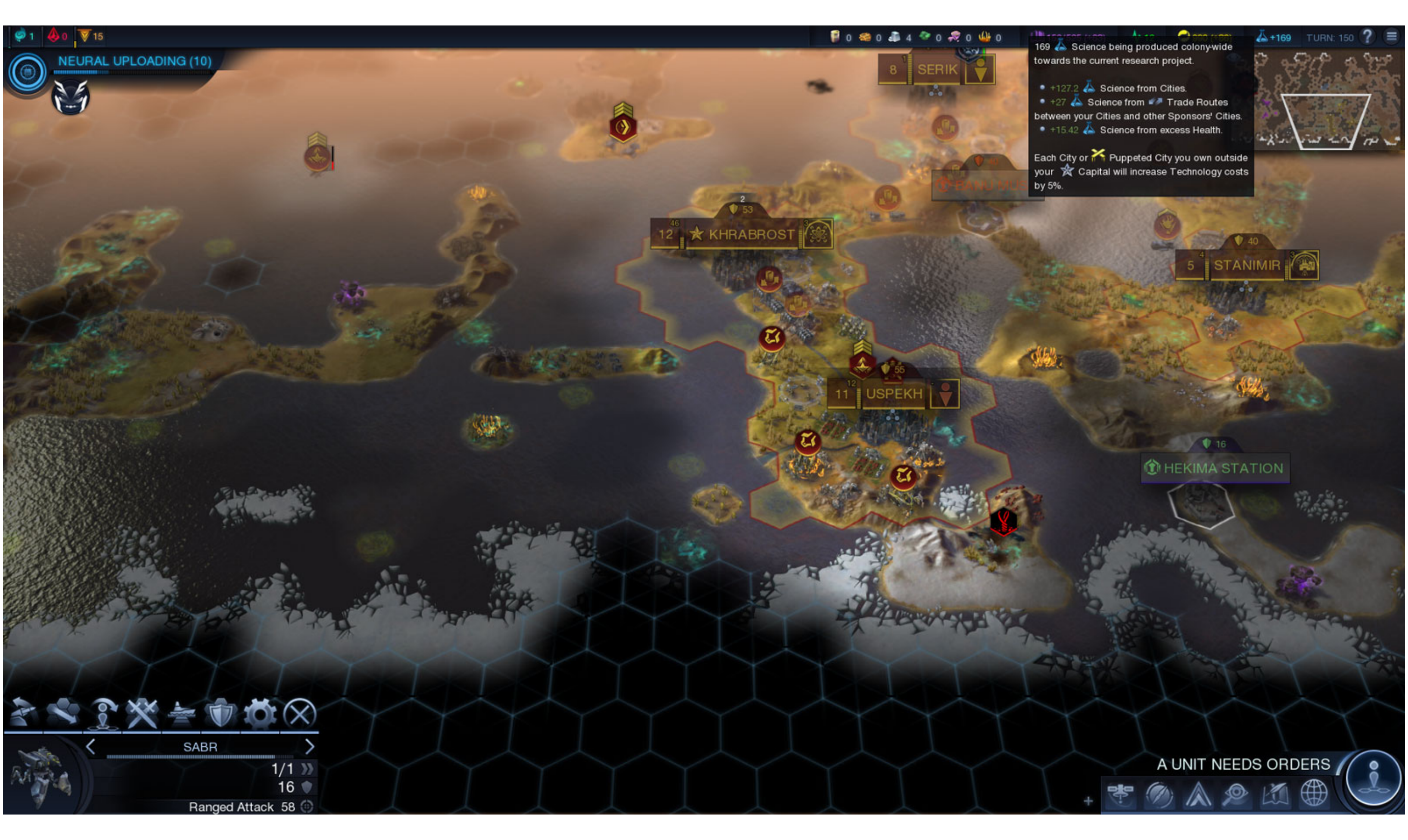
Research takes time. Every item that you want to research has a specific cost. The more Science your nation gains per turn, the sooner you can get each Research item completed. Buildings that yield beakers contribute to your nation's Science tally. The more of them you have, the better off you are when it comes to Research.

INVESTING IN YOUR SCIENCE

To get more beakers (often referred to simply as "Science"), you must construct laboratories, clinics, and other Science-generating buildings. Have workers add academies to your tiles once you gain access to them, and staff scientist specialists into buildings once you have a larger city and can spare the citizens.

International trade is another great way to earn Science. Trade routes with other players' nations yield Energy and Science. Naval routes are the best for this, but heavy use of international land routes can still earn you a massive bonus to your Science income.

Knowledge virtues are another great way to earn Science for your nation. These traits let you research Technology at an impressive rate, and they're good for your Culture, as well. There aren't many other pro-Science virtues in any of the other lines.


169 Science being produced colony-wide towards the current research project.

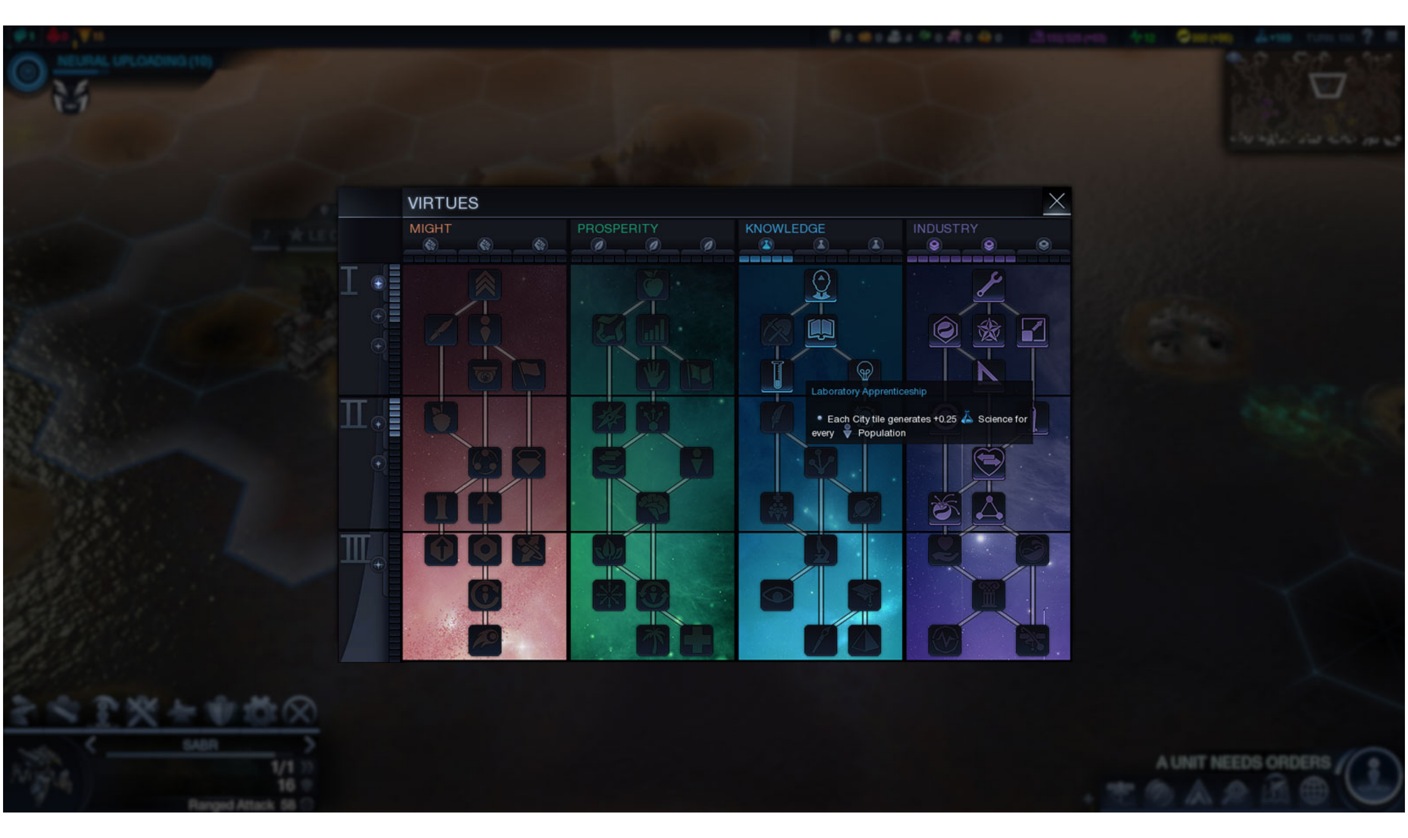
- +127.2 Science from Cities.
- +27 Science from Trade Routes between your Cities and other Sponsors' Cities.
- +15.42 Science from excess Health.

Each City or Puppeted City you own outside your Capital will increase Technology costs by 5%.

NEURAL UPLOADING (10)
SERIK
KHRABROST
STANIMIR
USPEKH
HEKIMA STATION
SABR
Ranged Attack
A UNIT NEEDS ORDERS

Virtues That Aid Science

- **Scavenging (Might)**: You earn Science from killing aliens and destroying alien nests.
- **Foresight (Knowledge)**: +10% Science when your nation is healthy.
- **Field Research (Knowledge)**: Raises Science when you complete each expedition.
- **Laboratory Apprenticeship (Knowledge)**: Generates Science from every citizen in your cities.
- **Networked Datalinks (Knowledge)**: Reduces the Science penalty from the number of cities in your nation.
- **Metaresearch Methods (Knowledge)**: Reduces the cost of leaf Technologies.
- **Learning Centers (Knowledge)**: +2 Science from academies.
- **Technoartisans (Knowledge)**: Earn extra Science from your Culture output.


Laboratory Apprenticeship

- Each City tile generates +0.25 Science for every Population

VIRTUES
MIGHT
PROSPERITY
KNOWLEDGE
INDUSTRY
I
II
III

CHOOSING YOUR GOALS

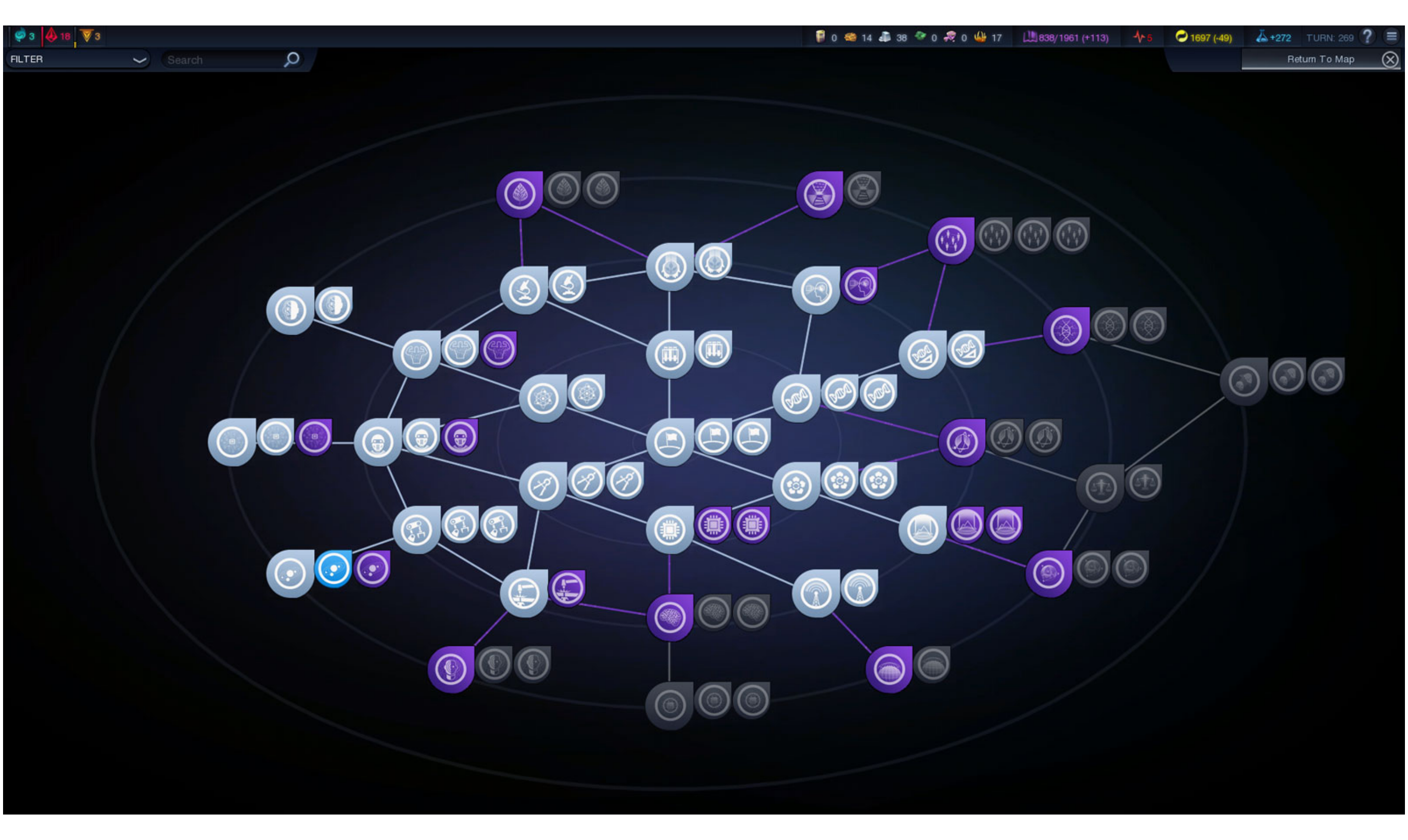
This is going to take a few games to master, so stay calm, and don't worry about getting things just right the first time you play. You have so many choices that it's tricky to know what you need next. You have access to all of the leaves from branches that you already know and to all of the branches that are connected to your existing Technology. Whew; that's a lot of good stuff!

Go into the Technology web, and highlight all of the available items that are shown in purple. These are Technologies that are ready for Research. When you highlight the icon next to the piece of tech, it gives you a quick summary of that item (and what it gives you). The icons underneath the Technology are specific buildings or bonuses that you gain from researching that tech. Highlight those to get more involved details.

Select the piece of Technology that seems best for your current situation. Do you need more Health? Find Technology that has buildings with bonus Health. Looking for martial power? Scan around for specific units, or grab leaf Technology that raises your affinity. Higher affinity leads to more powerful military units, so raising affinity (especially whichever one you are going to use the most) is a great way to strengthen your forces.

What Colors Mean In The Tech Web

- **White**: Technology that has already been researched
- **Purple**: Technology that can be researched as soon as you want
- **Blue**: Technology that is being researched currently
- **Grey**: Technology that cannot be accessed yet


FILTER
Search
Return To Map

You can change Research goals at any time. Go into the Technology web, and click on a new item to shift Research toward that goal. This delays your progress if you do it after already investing in another item (because your Research on one item doesn't transfer to your new goal). Unless something shifts your priorities very suddenly, it's better to pick your targets and stick with them until they're done.

Shifting away from existing Research doesn't destroy your progress on the item in question. You can return to it later and resume your work. Think of this as a delay instead of a cancellation. The scientists don't delete everything on their hard drives just because you cut their funding.

When you're back in the main screen, the icons in the upper-left area show you the goal of your Research, the number of turns until it completes, and the rewards you're going to get. Track these while you're playing so that you can time things well. "I'm going to get a tech with more affinity in five turns; I'll get my military close to my enemy's border because I know that I'm going to get some good upgrades this time."

ORBITAL AUTOMATION

904 / 3,042

Allows the Deep Space Telescope orbital unit. Improves the Science output of your Arrays.

ORBITAL AUTOMATION (8)
Ocean
DRAGOON
CITY CAN ATTACK

PATTERNS IN THE WEB

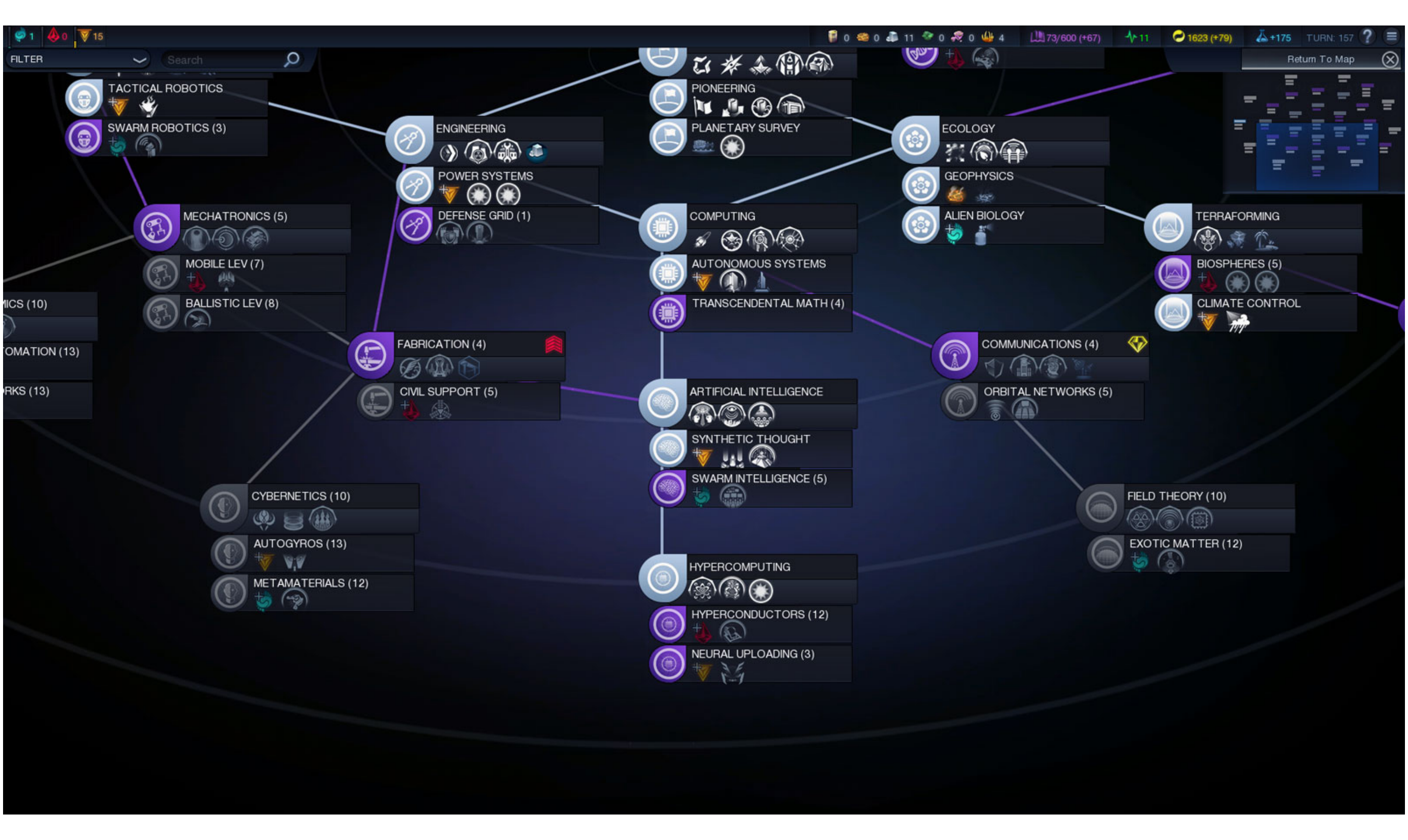
There is absolutely a method to the layout of the web. Take some time scanning the Technologies, and you'll start to see this. Sure, more expensive Technologies are on the outer circles, with the inner circle costing far less Science. That's obvious, but there is much more to the pattern than that.

Look at the number of Purity units and affinity on the left side of the web. That is clearly intentional. The Purity victory condition is on the left, their unique units are there, and there's 40% more Experience for them (compared with the right side).

The difference is even more pronounced for Harmony. Their victory condition is on the right side, and the gap in Harmony affinity Experience is even greater.

Supremacy is along the bottom of the web.

The top has many buildings that are useful to a wide variety of players.


FILTER
Search
Return To Map
TACTICAL ROBOTICS
SWARM ROBOTICS (3)
PIONEERING
PLANETARY SURVEY
ENGINEERING
POWER SYSTEMS
DEFENSE GRID (1)
ECOLOGY
GEOPHYSICS
ALIEN BIOLOGY
MECHATRONICS (5)
MOBILE LEV (7)
BALLISTIC LEV (8)
COMPUTING
AUTONOMOUS SYSTEMS
TRANSCENDENTAL MATH (4)
TERRAFORMING
BIOSPHERES (5)
CLIMATE CONTROL
FABRICATION (4)
CIVIL SUPPORT (5)
ARTIFICIAL INTELLIGENCE
SYNTHETIC THOUGHT
SWARM INTELLIGENCE (5)
COMMUNICATIONS (4)
ORBITAL NETWORKS (5)
CYBERNETICS (10)
AUTOGYROS (13)
METAMATERIALS (12)
HYPERCOMPUTING
HYPERCONDUCTORS (12)
NEURAL UPLOADING (3)
FIELD THEORY (10)
EXOTIC MATTER (12)

Before you play, you might assume that this means all players are going to beeline in the direction of their chosen affinity. That's not entirely true. The increased cost of branches on the middle and outer circles encourages players to invest in multiple branches and leaves before pushing out to the outer circles. Because of this, you're likely to gain some Technologies that are all over the place. Beyond that, the buildings and bonuses you gain all over the web are useful. Some might be locked if you don't have enough of a given affinity, but most are available to all players.

It's best that you focus your strongest efforts in the direction of your chosen affinity but backfill other Technologies whenever the cost of moving forward gets too high. "27 turns just to get Mechatronics?!?! I think I'll finally get Alien Sciences."

In times of peace, direct your efforts toward additional buildings, wonders, and tile improvements. When you're planning a war (or worrying that one might come to you), change your goals, and get new units and affinity Experience. If you go after affinity Experience exclusively, you won't end up with big, strong cities. If you only go after cool buildings and infrastructure, someone is going to come in and conquer all of your nice land!

Magrail

Grassland

Trade Routes:

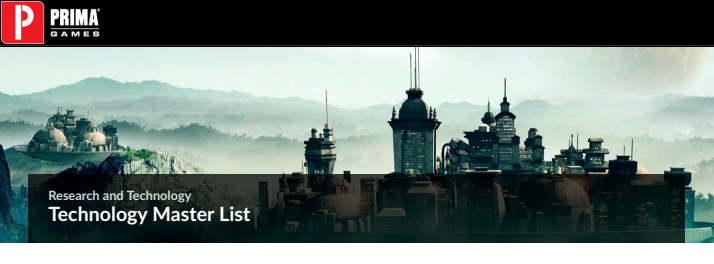
Gong Ren (Pan-Asian Cooperative) Jimboomba (Pan-Asian Cooperative)

Huanle (Pan-Asian Cooperative) Gong Ren (Pan-Asian Cooperative)

Gong Ren (Pan-Asian Cooperative) Rangi (Pan-Asian Cooperative)

Gong Ren (Pan-Asian Cooperative) Pembela (Pan-Asian Cooperative)

ORBITAL AUTOMATION (8)
GONG REN
CITY CAN ATTACK


Research and Technology

Technology Master List

ALIEN ADAPTATION

- **Cost**: 770 Science
- **Prerequisite**: Alien Sciences
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is a pro-Harmony Technology that isn't going to be heavily used by non-Harmony players. The Harmony Experience and unique unit ensure that this gives a strong bonus only to people who can heavily invest in this affinity.

ALIEN BIOLOGY

- **Cost**: 249 Science
- **Prerequisite**: Ecology
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Alien Biology is a very convenient piece of Knowledge. Even though it yields Harmony Experience, it's a common choice for all players at some point in the early or mid game. Being able to have workers remove miasma and work safely in miasma-infested tiles is something that everyone wants. This is rarely a game changer unless you need the Harmony Experience, so wait until you have other major techs in the first circle before going after Alien Biology.

ALIEN DOMESTICATION

- **Cost**: 1820 Science
- **Prerequisite**: Alien Ethics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Another major pro-Harmony tech, Alien Domestication has very few bonuses for non-Harmony players. Getting more Culture out of Xenomass Wells is universally nice, but it's not a huge bonus because few players get access to more than several Xenomass tiles (at best).

For Harmony players, the fast Xeno Cavalry makes life much easier when planning or thwarting raids. Make this a priority if you're playing Harmony and need the extra military options.

ALIEN ECOLOGY

- **Cost**: 770 Science
- **Prerequisite**: Alien Sciences
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is a must for Harmony players that are well into the mid game. Their later units require miasma to be at their best, and other players get the ability to remove miasma early in the game. You need this Technology, as it allows you to spread miasma through workers and orbitals. Absolutely essential.

ALIEN ETHICS

- **Cost**: 1160 Science
- **Prerequisite**: Alien Sciences
- **Leads To**: Alien Domestication, Artificial Evolution, Planetary Engineering

Unlocks alien preserve (building), +1 Culture from Paddocks

Following the trend that "alien" often means that Harmony players love this tech, Alien Ethics is a supporting Technology for the eventual Transcendence victory. You get mind stems and Xeno sanctuaries. Both of these make a Transcendence victory much faster to achieve. Get this as soon as possible so that you can work on these buildings as early in the game as you can.

ALIEN EVOLUTION

- **Cost**: 3216 Science
- **Prerequisite**: Artificial Evolution
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This gives you the dreaded Xeno Titan. It's a cornerstone for military conquest by late-game Harmony players. Unless you're not dealing with war in the late stages of the game, you want to have this tech.

ALIEN GENETICS

- **Cost**: 770 Science
- **Prerequisite**: Genetic Design
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Alien Genetics is great for all players, so don't shy away from it because it sounds like Harmony tech. Indeed, you gain Purity Experience and a universally useful improvement bonus from this tech. It's a must-have choice for Purity players, good for Harmony enthusiasts, and adequate for a Supremacy player who has a decent supply of Xenomass that they can improve.

ALIEN HYBRIDIZATION

- **Cost**: 1820 Science
- **Prerequisite**: Transgenics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This technology is too costly for non-Harmony players to get early on, but it's still eventually a must-have tech. The bonus Healing in miasma and immunity to its damage are wonderful if you're fighting against anyone who uses miasma for their troops. Harmony players need this for the extra miasma survivability. Non-Harmony players want it because it lets them fight in Harmony territory without as many disadvantages.

If no one is using miasma substantially, this suddenly becomes quite skippable.

ALIEN LIFEFORMS

- **Cost**: 249 Science
- **Prerequisite**: Genetics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Alien Lifeforms is an early Culture Technology. The Paddock bonus is pretty darn nice because those improvements aren't that rare. Additionally, Alien Preserves are another low-cost Culture building. This is perfect for anyone who is developing their cities rather than simply churning out military units.

ALIEN MATERIALS

- **Cost**: 3216 Science
- **Prerequisite**: Artificial Evolution
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This tech is too deep to be especially awesome for Supremacy users. Instead, Harmony players who want some Supremacy bonuses typically pick this up. The Xenonova wonder is unlocks is nice for a single city but isn't a global power shifter. Treat this as a fun secondary target for Harmony players in the late game.

ALIEN SCIENCES

- **Cost**: 380 Science
- **Prerequisite**: Ecology or Genetics
- **Leads To**: Alien Adaptation, Alien Ecology, Alien Ethics

Unlocks alien preserve (building), +1 Culture from Paddocks

Alien Sciences is a core Harmony Technology because it allows your workers to start gathering Xenomass. This resource is used for many Harmony buildings and units, so the sooner you can get it, the better off you are. Non-Harmony players can often get enough affinity to use the xenofuel plant and xenonursery, so they may be interested in this Technology a bit later on, while backfilling their techs.

ARTIFICIAL EVOLUTION

- **Cost**: 2480 Science
- **Prerequisite**: Alien Ethics or Transgenics
- **Leads To**: Alien Evolution, Alien Materials

Unlocks alien preserve (building), +1 Culture from Paddocks

This late-stage Harmony tech is useful for players who need tons of extra Health, likely due to having a large nation with a substantial number of cities. Prosperity players often have Health under control by that portion of the game, so Artificial Evolution is best for military players or builders who get bigger than they expected without investing in Prosperity virtues.

ARTIFICIAL INTELLIGENCE

- **Cost**: 770 Science
- **Prerequisite**: Fabrication or Computing
- **Leads To**: Hypercomputing, Synthetic Thought, Swarm Intelligence

Unlocks alien preserve (building), +1 Culture from Paddocks

This worthwhile Technology helps with spying, military matters, and Culture, so it's all over the board. The surveillance web is a godsend if you're having trouble keeping spies from tearing up your cities. This isn't usually a problem against the computer, but it can be common while playing against other humans.

The CEL cradle is a Supremacy building that has a very nice quest reward. That alone makes this Technology a solid pick for midgame Supremacy types. Other players should invest in Artificial Intelligence somewhat later, unless they're having the spy problems mentioned above.

ASTRODYNAMICS

- **Cost**: 2480 Science
- **Prerequisite**: Mechatronics
- **Leads To**: Orbital Automation, Dark Networks

Unlocks alien preserve (building), +1 Culture from Paddocks

This Technology is a powerful defensive choice in the late game. The Planet Carver is a devastating orbital unit, while neoplanetariums and the skycrane assist with orbital Production and general Production, respectively.

If you get enough Orbital Coverage, you can use Planet Carvers to help break through enemies who are especially well fortified along a border. Keep that in mind if you have a stalemate brewing.

AUGMENTATION

- **Cost**: 2480 Science
- **Prerequisite**: Bionics
- **Leads To**: Surrogacy

Unlocks alien preserve (building), +1 Culture from Paddocks

This Technology comes late in the tree, on the Supremacy side. Its augmentaries are incredibly expensive and can't be produced by most non-Supremacy players. They are well rounded and make your key cities that much nicer at almost everything, so they're perfect when you've exhausted your primary building queues.

The generator bonus is okay, but not a big game changer by the time it arrives. The Daedalus Ladder is also a minor benefit; it's better for farming points as a wonder than for actually improving the city that it goes into.

AUTOGYROS

- **Cost**: 3216 Science
- **Prerequisite**: Cybernetics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is primarily a Supremacy selection due to its Experience and unique unit. CARVRs are tough melee assault troops, reliable but very expensive. Only prioritize them if you have massive Firaxite supplies that you are ready to invest.

AUTONOMOUS SYSTEMS

- **Cost**: 770 Science
- **Prerequisite**: Computing
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Supremacy players are going to push for this because of its solid Experience and the mix of additional perks. Even non-Supremacy players may prioritize Autonomous Systems because of the Master Control; this wonder makes your workers much more effective because of their increased movement. They waste fewer turns, and that adds up greatly when you're moving them around large empires or into rough terrain. Master Control is excellent for expansive nations, while it's not as impressive for anyone who is mostly holding their borders. Their cities are already getting massive attention and don't need much more worker efficiency.

Nodes let you heal on nearby tiles. They're superb to set up along militarized borders. They make your defenders so much more annoying to kill. If you find yourself fighting defensive wars often, this is a wonderful improvement to grab.

BALLISTIC LEV

- **Cost**: 1820 Science
- **Prerequisite**: Mechatronics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

You only get the Mass Driver out of this Technology. It gives the constructing city a crazy amount of Range for its anti-orbital work. If you share a nearby border with an enemy who loves their orbitals (such as Harmony players), then this is a useful wonder. Otherwise, it's not that important.

BALLISTICS

- **Cost**: 249 Science
- **Prerequisite**: Physics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This Technology is useful for everyone who needs more defensive options. Rocket batteries make your cities hit harder and survive longer. They're great for anyone who must defend their lands, but they aren't that major for people who have huge militaries or good Diplomacy.

The Stellar Codex is wonderful for your nation's best orbital city. You can launch far better orbital strikes because of it, which is wonderful for defense and sometimes good for offense, as well.

BIOCHEMISTRY

- **Cost**: 249 Science
- **Prerequisite**: Chemistry
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

If you have access to decent Petroleum, you should get Biochemistry quickly; it's a necessary Technology for getting more from your Petroleum resources. Water-based nations need Biochemistry even more. Water refineries are first-tier buildings for any city with more than a few water tiles. You can't get much better resource improvement for such a low Production cost.

BIOENGINEERING

- **Cost**: 2480 Science
- **Prerequisite**: Biology or Organics
- **Leads To**: Industrial Ecology, Biometallurgy

Unlocks alien preserve (building), +1 Culture from Paddocks

Bioengineering has gifts for all types of players. Though expensive, it leads to a wide range of nice buildings and perks. The molecular forge is a nifty Harmony Growth building. The bioglass furnace is a high-end Supremacy building, and the Xenomalleum is a nifty Energy wonder for any player.

Beyond that, the leaf Technologies under Bioengineering are powerful for additional affinity Experience and global bonuses. If you can afford Bioengineering, you probably want it, especially in times of peace, when you can do the most development.

BIOLOGY

- **Cost**: 770 Science
- **Prerequisite**: Chemistry
- **Leads To**: Vertical Farming, Bioengineering

Unlocks alien preserve (building), +1 Culture from Paddocks

Biology is good for a number of players. Domes are great Culture improvements that let you focus cities on high-end Culture output instead of just general points here and there.

Biofuel plants are best for naval powers that have multiple coastal cities. They can get serious Energy out of those plants.

Growlabs are the most specific reward for this tech. They are great for Food but require both moderate Harmony Experience and local Fungus to get their best output.

Note that Purity players and big farmers love to push toward Biology earlier than most. Purity players get Experience from Vertical Farming, the leaf under Biology. And everyone loves the Energy and Food boost gained from that tech, as well. If you have a large Growth-based nation, you really should get Biology and then Vertical Farming ASAP.

BIOMETALLURGY

- **Cost**: 3216 Science
- **Prerequisite**: Bioengineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Take this tech if you still need Supremacy Experience while late in the game. It's good for everyone with its generator and Mine bonuses, but these won't have too much time to influence the game, so Biometallurgy sometimes gets pushed to the side while people race for victory Technologies or items with ultimate unique units.

BIONICS

- **Cost**: 770 Science
- **Prerequisite**: Physics
- **Leads To**: Augmentation, Servomachinery, Tissue Engineering.

Unlocks alien preserve (building), +1 Culture from Paddocks

Institutes are located here; they're one of the best Science buildings for larger cities. Though they don't have any innate Science until their quest is done, they have multiple slots for scientist specialists. That's quite useful for cities that want to invest in greater Science yields.

Biowells are tile improvements that act like upgraded farms. They add Health and Food to a tile, though they have upkeep and won't benefit from Technologies that upgrade farms. If you're pushing for an especially large nation, these are worth putting down because the added Health can make a big difference in the midgame (or even late game if you aren't pushing for Prosperity virtues).

Bionics labs are good for Health, too, but they're locked unless you have a moderate amount of Purity. Even then, they're better for large cities that already have a number of Health buildings completed.

BIOSPHERES

- **Cost**: 1160 Science
- **Prerequisite**: Terraforming
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This Technology is great for Growth-based nations. You get more Food carried over and, thus, faster development for your cities. The bonus Energy from domes makes it easier to strengthen your economy while boosting Culture. If that isn't enough, you get Purity Experience, as well, so there's a lot to grab here for almost any player.

This is best researched slightly earlier in the game because the improved Growth rates really shine when given plenty of turns to take effect.

CHEMISTRY

- **Cost**: 95 Science
- **Prerequisite**: Habitation
- **Leads To**: Biochemistry, Biology, Organics

Unlocks alien preserve (building), +1 Culture from Paddocks

Go after Chemistry very early so that you get your Science and Production pumping. This is true for all player types.

Chemistry gets you a couple basic but important buildings. Recyclers are used by everything. They're great early buildings for Production and are especially powerful for nations that engage in heavy trade. Laboratories get your Science going.

Petroleum access isn't critical until midgame for most players, as it's used in orbital construction. You likely won't have orbital options in the early game, so that isn't as big a part of this tech.

CIVIL SUPPORT

- **Cost**: 1160 Science
- **Prerequisite**: Fabrication
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Civil Support pumps your Purity Experience and gets you access to a strong Culture orbital. The Holomatrix somewhat protects cities from the effects of covert operations, but its more important function is to raise Culture under its skirt. Use this on your best Culture cities to get a major boost.

CLIMATE CONTROL

- **Cost**: 1160 Science
- **Prerequisite**: Terraforming
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Climate Control is a Technology for people who need Supremacy Experience or even better Growth. The Weather Controllers are orbitals with good Food bonuses. They'll add resources to your nation, as well (basic resources only). This is doubly useful if you have other Technologies or virtues that build off of that. Prosperity and Industry players get even more from Climate Control than most because they get additional bonuses from their basic resources.

COGNITION

- **Cost**: 770 Science
- **Prerequisite**: Genetics or Organics
- **Leads To**: Collaborative Thought, Social Dynamics

Unlocks alien preserve (building), +1 Culture from Paddocks

Cognition is a very solid Supremacy choice, despite the fact that it's in the upper portion of the web. You gain access to Collaborative Thought (which has Supremacy Experience), neurolabs (a Supremacy Science building), and holosuites (which aren't usable without Firaxite).

The only wonderful item here for non-Supremacy players is the academy improvement. This adds major Science bonuses to a tile and is a great way to bring a Science city to the forefront.

COLLABORATIVE THOUGHT

- **Cost**: 1160 Science
- **Prerequisite**: Cognition
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Speaking of Collaborative Thought, here it is. While still primarily useful for Supremacy players and those who want Supremacy Experience (perhaps to try to get up to the free roads and maglails tier), this tech is also great for defensive players. You get access to the Precog Project, a wonder with quite good combat bonuses against anyone inside your territory. It's a great way to deter or fend off conquerors who are near and might attack your civilization.

COMMUNICATIONS

- **Cost**: 770 Science
- **Prerequisite**: Computing
- **Leads To**: Field Theory, Orbital Networks

Unlocks alien preserve (building), +1 Culture from Paddocks

Communications has quite a few unlocks under its name. Defensively, you benefit from Tacnet Hubs, orbitals that greatly improve the damage and survivability of your units that are under their skirts. Combine this with the command center, and you can fortify your nation quite well.

Feedsite hubs are great for Culture and for players who are engaging heavily in international trade. Though they require a modest amount of Supremacy, you should still consider them a universally good building. You won't need more than a couple Supremacy Experience techs to use them.

Arrays are more situational. They're a tile improvement that expands a city's Orbital Coverage. Only use them in cities that have tricky border situations to work with, as with neighbors that you're planning to conquer in the somewhat near future. Don't use arrays deeper into your territory.

COMPUTING

- **Cost**: 380 Science
- **Prerequisite**: Engineering or Ecology
- **Leads To**: Artificial Intelligence, Autonomous Systems, Communications, Transcendental Math

Unlocks alien preserve (building), +1 Culture from Paddocks

Computing is a Technology on the first circle of the tech web, and it's incredibly worth your time. The military units you get (artillery and cruisers) help to bust cities and control the seas. However, they're still secondary to the Spy Agency. This national wonder starts your spy program, and it's a major facet of your offense and defense throughout the game. Don't wait too long to get this; your opponents won't.

Finally, you get a good Science building: the network. It's fairly cheap for the raw volume of Science it adds to a city.

CYBERNETICS

- **Cost**: 2480 Science
- **Prerequisite**: Fabrication
- **Leads To**: Autogyros, Metamaterials

Unlocks alien preserve (building), +1 Culture from Paddocks

Cybernetics are primarily military in function. This isn't a tech for people who aren't heavily using orbitals or defensive structures because that's all you're going to get.

The Orbital Laser is a moderate-strength orbital with damaging capabilities. It's useful for local defense or for short-range campaigns against other nations' cities.

The Phasal Transporter is even more interesting. It allows your units to teleport from friendly cities to the area under its skirt. This is great for repositioning forces before, during, or after a campaign.

Node banks are a late-game defensive structure for cities.

DARK NETWORKS

- **Cost**: 3216 Science
- **Prerequisite**: Astrodynamics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Only research Dark Networks if severe enemy spy activity is plaguing you. The orbital you get here protects a city completely from Intrigue and covert operations. This is often overkill, but it's always nice to have options.

DEFENSE GRID

- **Cost**: 249 Science
- **Prerequisite**: Engineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Players get military options out of this Technology, so it's either an early grab for defensive operations or a later choice for people who are expanding peacefully.

The defense perimeter is one of the best defensive structures you can buy. It's excellent for extending city survival times during a siege.

The Panopticon is a wonder that extends the sight range of your military units. It's perfect if you love raiding or hate when people raid you. Being able to see what's coming always gives you an edge when planning your actions. Combine this with the Optical Surgery quest reward, and you can see for miles.

DESIGNER LIFEFORMS

- **Cost**: 3216 Science
- **Prerequisite**: Synergetics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is only a useful Technology for Harmony players. They enjoy the additional affinity Experience and use of the Pocktopus. This is a unit that can enter orbit, provide coverage, and upgrade into a unit that spreads miasma. It's wonderful for Harmony campaigns outside of their territory.

ECOLOGY

- **Cost**: 95 Science
- **Prerequisite**: Habitation
- **Leads To**: Alien Sciences, Geophysics, Terraforming, Alien Biology

Unlocks alien preserve (building), +1 Culture from Paddocks

Ecology is one of the best early Technologies for a number of player types. Vivariums are a good way to kick-start Growth in your cities. Miasmic Repulsors take care of miasma problems that are too thick to handle, and they're easy to make.

The most interesting thing here is the ultrasonic fence. Able to prevent approach by aliens, this avoids confrontations between your nation and the local fauna. If you have allies that don't want to hurt the aliens, this can help avoid serious diplomatic issues. Additionally, there is a quest reward after you start using ultrasonic fences that protects your trade convoys from alien attacks. This is incredibly useful for land-based trade nations. You save so much time and Production because of this.

ENGINEERING

- **Cost**: 95 Science
- **Prerequisite**: Habitation
- **Leads To**: Computing, Defense Grid, Fabrication, Power Systems, Robotics

Unlocks alien preserve (building), +1 Culture from Paddocks

Engineering is an early tech that is most desirable for nations that are pushing for a strong economy or more aggression. It's useful for all players to get this at some point in their early game.

This tech gets you thorium reactors; they're one of the best ways to have a strong early game economy that isn't dependent on trade.

Combat Rovers are fast, heavy hitters. They have the Combat Strength to win fights, and they get into and out of trouble quite hastily. Though lacking defensive options as they upgrade into later-game units, these rovers never lose their offensive edge.

Repair facilities help you build units. They're situational for military Production cities.

EUTHENICS

- **Cost**: 3216 Science
- **Prerequisite**: Social Dynamics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Only grab this tech for the Supremacy Experience, as needed. The Human Hive wonder is good for points, and it protects a city from almost all Intrigue, but it isn't crucial toward any major strategies.

EXOTIC MATTER

- **Cost**: 3216 Science
- **Prerequisite**: Field Theory
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Exotic matter earns you Harmony Experience, but it's well off the beaten path for a Harmony player. This is a secondary tech that you are only likely to get in the super late game while backfilling things after you've gotten all of your core research done.

This Technology gets you access to the Ansible, a modest Energy and Science wonder. Construct it in large cities for a decent boost to their base yields.

FABRICATION

- **Cost**: 770 Science
- **Prerequisite**: Engineering, Mechatronics, Artificial Intelligence
- **Leads To**: Civil Support, Cybernetics

Unlocks alien preserve (building), +1 Culture from Paddocks

Everyone is eventually going to want Fabrication because it's a universally effective Technology. This tech is heavily about projecting your force around the world. Carriers let you send aircraft to distant shores to aid in conquest. Magrails bring your nation closer together and make it easier to defend even with a smaller force. Alloy foundries are decent Production buildings for cities that have access to Titanium.

FIELD THEORY

- **Cost**: 2480 Science
- **Prerequisite**: Communications
- **Leads To**: Exotic Matter

Unlocks alien preserve (building), +1 Culture from Paddocks

Field Theory is about high-end buildings. This isn't essential tech for most players, but it's reliable for powering a large late-game civilization with improved yields in their cities.

The field reactor is an economic powerhouse for any large city and any playstyle. Mantles require a huge investment in Purity, so they're not usually good for anyone who isn't playing with Purity as their primary affinity.

The Quantum Computer is a wonder with strong base Science and a free Technology on completion. It's worth constructing for almost any nation once you get access to it.

GENETIC DESIGN

- **Cost**: 380 Science
- **Prerequisite**: Genetics
- **Leads To**: Alien Genetics, Social Dynamics, Transgenics

Unlocks alien preserve (building), +1 Culture from Paddocks

This inexpensive second-circle Technology is one of the best techs to grab quickly for several reasons. If you're a fast expander with Purity Experience, you get gene gardens. They're very useful for keeping Health up. Cloning plants require Xenomass, so they're hard to use until you have time to get Alien Sciences, but they're good for Growth afterward.

And, as the best in show, you have a chance to secure the Ectogenesis Pod. This wonder is good for its city but also boosts your farm yields. That's a massive benefit for a growing nation. If you think that you can handle the Growth, this is one of the strongest wonders to race for.

GENETIC MAPPING

- **Cost**: 249 Science
- **Prerequisite**: Genetics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Genetic mapping is a purity staple for the early game. It sets you up to use the gene gardens from genetic design, and it also lets you construct the Gene Vault, a wonder with a great Food bonus locally and a Growth bonus globally. If you can get both the Gene Vault and the Ectogenesis Pod, you're in Growth heaven throughout the game.

This is possible for any player; you don't need to devote all of your life and resources toward Purity. Going toward a different affinity will take slightly longer because of this early push, but it's still totally doable.

GENETICS

- **Cost**: 95 Science
- **Prerequisite**: Habitation
- **Leads To**: Alien Lifeforms, Alien Sciences, Cognition, Genetic Design, Genetic Mapping

Unlocks alien preserve (building), +1 Culture from Paddocks

Everyone must get Genetics fairly early on. You need the Health and Science that pharmalabs and cytonurseries provide. Even people who aren't expanding benefit from these because it keeps their capitals growing comfortably for a very long time. There is such a thing as too much good Health in this game, but you won't likely hit that point any time before the late stages.

GEOPHYSICS

- **Cost**: 249 Science
- **Prerequisite**: Ecology
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This tech is a small gamble. Unless you have scanners to look for resources before the Technology is available, you won't know how rich your nation is in Geothermal sites. When you want to take the plunge, research this to reveal and then start exploiting them. Geothermals are good for your economy, and they help with various wonders, too.

GEOSCAPING

- **Cost**: 3216 Science
- **Prerequisite**: Planetary Engineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Geoscaping would be wonderful if you could get it early in the game, but it's way too deep in the web for that. This tech gets you Supremacy Experience and access to an orbital that raises Production and seeds the area with strategic resources. You can never have too many strategic resources, even (or especially) in the late game. Thus, the Orbital Fabricator remains viable even toward the final stages of the game.

HABITATION

- **Cost**: 50 Science
- **Prerequisite**: None
- **Leads To**: Chemistry, Ecology, Engineering, Genetics, Pioneering, Physics, Planetary Survey

Unlocks alien preserve (building), +1 Culture from Paddocks

You start each game with Habitation, so there isn't any concern about when to research it.

HUMAN CONSERVATION

- **Cost**: 3216 Science
- **Prerequisite**: Social Dynamics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Purity players aren't the only ones who might enjoy this Technology. It's costly to reach, so you can't grab it casually. However, it unlocks Deep Memory, a wonder that yields two instant virtues to its creator. If you are having a major problem and need a leap forward in virtues to solve it, this route can be easier than waiting for new buildings to cure the issue. This could be for Health trouble, financial woes, or just about anything.

HUMAN IDEALISM

- **Cost**: 3216 Science
- **Prerequisite**: Social Dynamics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

You get one wonder from this Technology: the New Terran Myth. This adds Culture to a city. Most players are going to take this tech very late in their careers because there are so many more vital elements on the third circle of the tech web.

HYPERCOMPUTING

- **Cost**: 2480 Science
- **Prerequisite**: Artificial Intelligence
- **Leads To**: Hyperconductors, Neural Uploading

Unlocks alien preserve (building), +1 Culture from Paddocks

This is practically locked for non-Supremacy players. Hypercomputing gets Supremacy people to their victory project and also grants them access to very powerful Science buildings. This should be one of the first techs you grab on the third circle if you're playing as a Supremacy nation. Otherwise, it's not anything you need to worry about.

HYPERCONDUCTORS

- **Cost**: 3216 Science
- **Prerequisite**: Hypercomputing
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Despite the Purity Experience, this isn't really a high-end item for non-Supremacy players. You can't get there quickly enough to have it be valuable. Instead, it's more of a way for Supremacy players to unlock additional Purity bonuses or get access to Purity buildings.

The Holon Chamber adds high base Science to a city. It's perfectly nice, but there isn't much to say about it.

INDUSTRIAL ECOLOGY

- **Cost**: 3216 Science
- **Prerequisite**: Bioengineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This tech has global bonuses and nothing else to worry about. You get even better farms and a boost to your Purity Experience, so that's all great. You should get this early in the third circle if you are a large Growth nation or if you still need Purity Experience for your master plan. Otherwise, this is solid but can wait for a little while longer.

MECHATRONICS

- **Cost**: 1160 Science
- **Prerequisite**: Robotics or Fabrication
- **Leads To**: Ballistic LEV, Mobile LEV, Astrodynamics

Unlocks alien preserve (building), +1 Culture from Paddocks

Mechatronics is a must-have tech for Purity players and a strong choice for Supremacy nations. The LEV plant is a Purity Production building with high costs but strong stats. Optical surgeries are high enough in the Supremacy line that many other nations can't use them. If you can, you get awesome quest rewards and a good Health building out of it.

The Crawler is a wonder that helps you construct other wonders. It gives you a Production boost that cuts major turns off of the costly end-game wonders that you're about to unlock. If you're hunting for extra points, that's a good way to get them.

NANOROBOTICS

- **Cost**: 3216 Science
- **Prerequisite**: Nanotechnology
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Nanorobotics is only valuable for Harmony players, despite the bonus to manufactories that you get from it. The real deal here is that Harmony players must come all the way out to this end of the tech web so that they can move toward the Mind Flower and get their victory.

NANOTECHNOLOGY

- **Cost**: 2480 Science
- **Prerequisite**: Robotics
- **Leads To**: Nanorobotics, Tactical LEV

Unlocks alien preserve (building), +1 Culture from Paddocks

Purity and Harmony players both must get this branch to unlock their victory conditions. Fortunately, both of them get other perks from this Research. Purity players go on to get Tactical LEV, which is great for their military. Harmony players move on to Nanorobotics.

Either way, nanopastures are very powerful for Growth. If you get these early enough, they make a large difference in the speed of your late-game cities' development. Nanothermite is a wonder to make a tough city even tougher.

The Exodus Gate itself is the Purity victory project. You have to construct it, protect it, and let the people of Old Earth come through to the promised land. It's not as quick as you'd expect, so be ready for other nations to come calling.

NEURAL UPLOADING

- **Cost**: 3216 Science
- **Prerequisite**: Hypercomputing
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Take this to unlock the ultimate Supremacy unit. ANGELs are costly but quite scary. They'll be the center of your attack forces, breaking through even some of the best end-game units while you try to defeat your rivals.

ORBITAL AUTOMATION

- **Cost**: 3216 Science
- **Prerequisite**: Astrodynamics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

You're probably going to get Orbital Automation well after collecting tons of other third-circle Technologies, unless you want to achieve a Contact victory. The Deep Space Telescope is a key component for that victory method. Despite its major Science bonuses, it's still not heavily pursued by other types of players because they have victory methods that they're already working on.

ORBITAL NETWORKS

- **Cost**: 1160 Science
- **Prerequisite**: Communications
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Purity and Supremacy players both go after orbital networks fairly aggressively. This Technology gets you the Lasercom Satellite; those need to fly before you're able to pursue either of the affinity victories for Purity or Supremacy. Lasercom satellites are also good for city Science, so they're mandatory and effective for these players!

The Memetwork is a top-tier Culture wonder for anyone who can get their hands on it. As long as you can get enough Production into your best Culture city, you should build it there. The bonuses are synergistic with all other Culture buildings and tiles around that city.

ORGANICS

- **Cost**: 770 Science
- **Prerequisite**: Chemistry, Biology, or Cognition
- **Leads To**: Photosystems, Bioengineering, and Synergetics

Unlocks alien preserve (building), +1 Culture from Paddocks

Organics is going to be tricky. Either you want it quickly because it has something that you need, or you're going to ignore it for a good while because the buildings and bonuses it has are fairly specific.

The biofactory is a Production building that is usually for Harmony players. It's low enough in requirements that you can get to it if needed, but that's an iffy proposition because its bonuses aren't that major for most cities.

The mass digester offers major Food potential through specialists and raises Energy yields on tundra. Basically, it makes tundra cities a fair bit more viable. They're still not great, but you take what you can get sometimes, especially if you're in dire need of strategic resources in a tundra area.

The flat generator bonuses are the best part of Organics, but they're dependent on the number of generators you've deployed. Big economists and Contact victory players can use this perk more than most others.

PHOTOSYSTEMS

- **Cost**: 1160 Science
- **Prerequisite**: Chemistry
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Harmony players and those same Contact victory folks mentioned before are going to be interested in Photosystems. The Harmony Experience speaks for itself, and anyone can enjoy the bonus Food on Plantations, even if that's not a core bonus for most people.

The Solar Collector is the big prize because that helps your economy. Use them extensively to boost Energy output around your empire. These orbitals don't need Titanium or Petroleum, so spam the heck out of them in areas where you don't need more specific satellites. The extra output seriously helps when it's time to complete the Contact victory.

PHYSICS

- **Cost**: 95 Science
- **Prerequisite**: Habitation
- **Leads To**: Ballistics, Bionics, Robotics

Unlocks alien preserve (building), +1 Culture from Paddocks

Most players take this Technology when they start needing the services of Rangers. These units are the first that you normally get with missile attacks. They help protect cities or assist during sieges against cities. The more danger you're in from aliens or early-game conquerors, the sooner you need to take Physics.

Observatories help your Science output, so they're required first-tier buildings in any locations with Firaxite.

PIONEERING

- **Cost**: 80 Science
- **Prerequisite**: Habitation
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

You can't do much settling without this Technology, so it should be one of the first few things that you go after. Your colonists found outposts in new areas for future Growth, and trade is just as important. You get all of your primary trade items through this tech, so it's something that all players must have.

PLANETARY ENGINEERING

- **Cost**: 2480 Science
- **Prerequisite**: Terraforming
- **Leads To**: Geoscaping, Seismic Induction

Unlocks alien preserve (building), +1 Culture from Paddocks

Usually, this is a Purity tech or Supremacy Technology. It leads to leaves with affinity Experience for both of them. Planetary Engineering itself improves your generator output, which is useful for most players in varying degrees. However, the main draw is the borehole, which adds major Production in Purity players' cities.

PLANETARY SURVEY

- **Cost**: 80 Science
- **Prerequisite**: Pioneering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

As soon as you want to start exploring over water or developing coastal cities, you'll want this tech. It's invaluable for exploration in areas with any substantial water content. If you're totally landlocked, let this wait for a long time.

POWER SYSTEMS

- **Cost**: 249 Science
- **Prerequisite**: Engineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

It's great to have multiple global bonuses in one piece of Technology, but Power Systems are still somewhat secondary for non-Supremacy players. Geothermal Wells and Mines aren't as common as some of the other tile improvements, so raising their yields is nice but not vital to your nation.

However, this is a great source of early Supremacy Experience. If you need that, it's waiting right here, and the tile bonuses aren't going to hurt.

PROTOGENETICS

- **Cost**: 1820 Science
- **Prerequisite**: Transgenics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Though a small tech with few bonuses, Protogenetics is quite nice if you're trying to get a few more late-game virtues and need to squeeze more Culture out of your best Science cities. Build extra academies there to raise your Science and get plenty of additional Culture, too.

Science and Culture are well linked in this game anyway, and this is doubly true for players who invest well in the Knowledge line of virtues. They are the most likely to grab this tech, while others can afford to let it wait.

ROBOTICS

- **Cost**: 380 Science
- **Prerequisite**: Physics or Engineering
- **Leads To**: Bionics, Mechatronics, Tactical Robotics, Swarm Robotics, Nanotechnology

Unlocks alien preserve (building), +1 Culture from Paddocks

Robotics are useful for many independent reasons. Traders need the autoplants for gaining an extra trade route (through the building's quest reward). Attackers and defenders both need Tacjets so that they can start building an air force. On top of that, you can start making super Production cities with manufactories. This Technology has it all.

That is even more the case for Supremacy players, who need to start getting Firaxite early and aggressively. Expect them to hurry after this Technology.

SEISMIC INDUCTION

- **Cost**: 3216 Science
- **Prerequisite**: Planetary Engineering
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Come after this end-game Technology for the Purity boost or to grab the Archimedes Lever. This wonder adds massive survivability to a city, and if you're working on a non-Domination victory, you probably need to stave off at least one rival who is marauding around the map.

SERVOMACHINERY

- **Cost**: 1160 Science
- **Prerequisite**: Bionics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is a given for Purity players. Their Battlesuits are unlocked here, and they get additional affinity Experience by researching Servomachinery. It's perfect for them but somewhat lackluster for anyone else (unless you're really close to a Purity bonus and want that as a secondary affinity).

SOCIAL DYNAMICS

- **Cost**: 2480 Science
- **Prerequisite**: Cognition or Genetic Design
- **Leads To**: Euthenics, Human Conservation, Human Idealism

Unlocks alien preserve (building), +1 Culture from Paddocks

You get buildings galore out of Social Dynamics. Only the terra vault is Purity-specific; the others are good for everyone. Though not required for any victories, this is still a good tech to get late game when developing cities for extra points and resources. The Soma distillery is a super building for turning Health problems into a non-issue.

SURROGACY

- **Cost**: 3216 Science
- **Prerequisite**: Augmentation
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Watch Purity people hurry here after they get a couple of their other unique units. The Aegis units they gain are reliable ranged attackers. Quite nice. Non-Purity players don't really need anything here. Even the worker speed boost isn't too important because it's late enough in the game that those workers can finish as many projects before the game ends.

SWARM INTELLIGENCE

- **Cost**: 1160 Science
- **Prerequisite**: Artificial Intelligence
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Come for the Bytegeist. This wonder helps you finish a number of virtues even in the late game. That's a great way to get additional bonuses when you desperately need them. Combine this with the Deep Memory wonder to make sure that your nation gets tons of virtues while other players languish.

SWARM ROBOTICS

- **Cost**: 770 Science
- **Prerequisite**: Robotics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This isn't just a Harmony staple because of its end-game requirement. Indeed, the Harmony Experience and Drone Sphere are both wonderful in addition to Swarm Robotics' place in the Transcendence victory.

The Drone Sphere aids in healing your units; this is something that Harmony already does well, and getting even more bonuses ensures that their units survive under any light- or moderate-strength assault.

SYNERGETICS

- **Cost**: 2480 Science
- **Prerequisite**: Organics
- **Leads To**: Designer Lifeforms

Unlocks alien preserve (building), +1 Culture from Paddocks

Harmony and Supremacy players get big boosts from Synergetics. The microbial mine is a great Production building for larger cities. Use manufactories to get places like that chugging away. Supremacy players get the organ printer, which adds a heavy Science boost to places that are already well developed.

Anyone can go after the Armasail, a wonder that makes a city incredibly hard to siege and conquer.

SYNTHETIC THOUGHT

- **Cost**: 1160 Science
- **Prerequisite**: Artificial Intelligence
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Straight down the Supremacy line, you won't find too many other player types researching this Technology. The SABR is the best artillery unit in the game for range and raw firepower. It's incredible. However, it is limited by slow movement and must be used defensively or with careful planning. Workers should prepare roads toward enemy territory in advance of a war so that SABRs can participate. Note that humans will know what's going on, and they won't quietly wait for you to approach, set up, and begin your bombardments.

The Cynosure gives your army a sudden surge of Veterancy, which is perfect if used in the middle of a major war. That's tough to time but well worth the attempt.

TACTICAL LEV

- **Cost**: 3216 Science
- **Prerequisite**: Nanotechnology
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

Come, Purity players, and collect your LEV Destroyer. Now lay waste to the world.

TACTICAL ROBOTICS

- **Cost**: 770 Science
- **Prerequisite**: Robotics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This is a Supremacy tech. It gives affinity Experience and unlocks CNDR units.

TERRAFORMING

- **Cost**: 770 Science
- **Prerequisite**: Ecology
- **Leads To**: Biospheres, Climate Control, Planetary Engineering

Unlocks alien preserve (building), +1 Culture from Paddocks

This is a major Purity tech because it gets those players a good Energy building and the Floatstone Quarries that are vital for their nations. However, other players get much out of Terraforming, too. Terrascapes cost a great deal of Energy and some Health, and they take forever to build, but they're the best tile improvements in the game. Make your best cities even better with them.

Prosperity players get even more out of Terraforming because of their Terrascape bonuses.

TISSUE ENGINEERING

- **Cost**: 1160 Science
- **Prerequisite**: Bionics
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

This tech is useful for any type of player because of its global Healing bonus. Harmony players get even more out of it because of their need for Harmony affinity Experience and due to their playstyle (Harmony units are kind of made to take more damage but heal quickly).

TRANSCENDENTAL MATH

- **Cost**: 770 Science
- **Prerequisite**: Computing
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

If you aren't trying to get the Contact victory, you don't need to worry about this Technology. It's one of several steps that you must take to win the game in that manner.

TRANSGENICS

- **Cost**: 1160 Science
- **Prerequisite**: Genetic Design
- **Leads To**: Artificial Evolution, Alien Hybridization, Protogenetics

Unlocks alien preserve (building), +1 Culture from Paddocks

Harmony players are going to push for this Technology fairly quickly; it's one of the techs that they need for a Transcendence victory.

Other players can gain loads of good Health by researching Transgenics and putting gene smelters throughout the world. The Promethean is powerful in the same way; it adds good Health, as well as a free virtue.

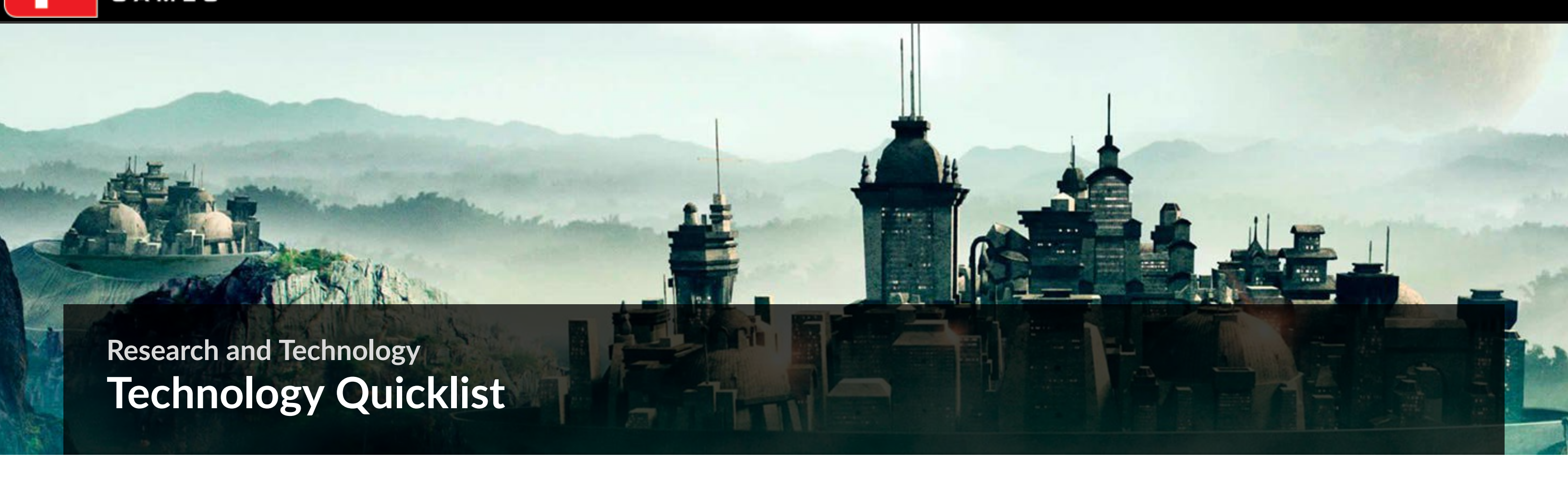
VERTICAL FARMING

- **Cost**: 1160 Science
- **Prerequisite**: Biology
- **Leads To**: None

Unlocks alien preserve (building), +1 Culture from Paddocks

If you have developed a large number of farms in the early game, this is a tech that you can't ignore. The bonus makes farmland viable even with higher-tier improvements like biowells. You can get massive amounts of Food and then grab Energy, too. This is amazing when combined with flood plains.

In any event, Purity players enjoy the affinity from Vertical Farming, but everyone should seriously consider taking it when they reach the second circle of techs.

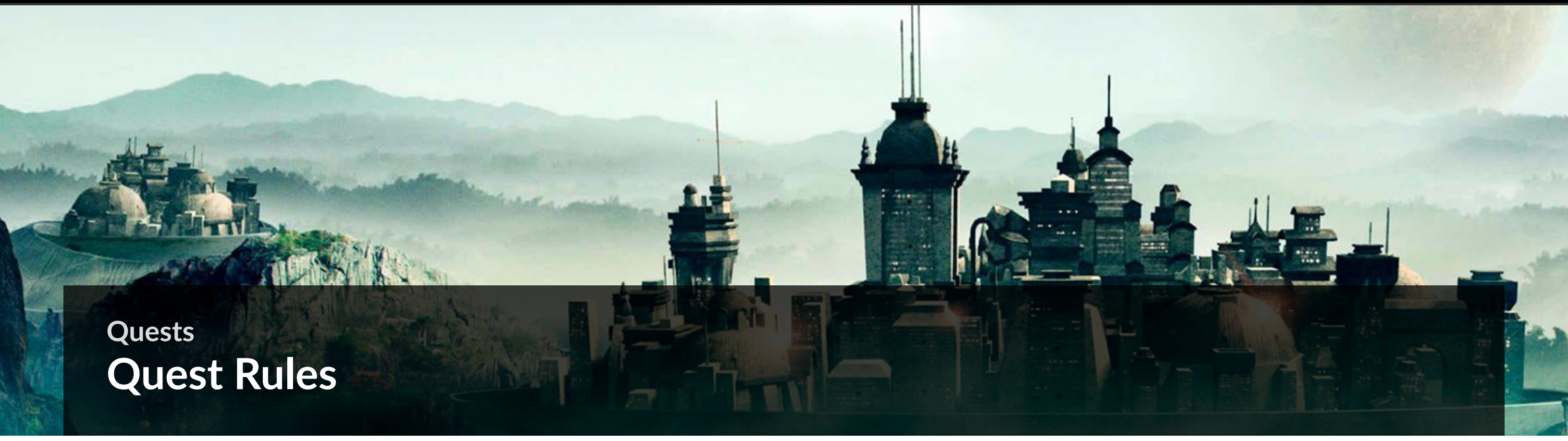


Research and Technology

Technology Quicklist

Technology Quicklist

Technology	Cost (Science)	Prerequisite	Leads To	Benefits
Alien Adaptation	770	Alien Sciences	N/A	Unlocks Xeno Swarm (unit), affinity gain (Harmony)
Alien Biology	249	Ecology	N/A	Allows workers to clear miasma, workers immune to miasma, affinity gain (Harmony)
Alien Domestication	1820	Alien Ethics	N/A	Unlocks Xeno Cavalry (unit), 1 Culture (from Xenomass Wells), affinity gain (Harmony)
Alien Ecology	770	Alien Sciences	N/A	Unlocks Miasmic Condenser (unit), allows workers to add miasma to tiles
Alien Ethics	1160	Alien Sciences	Alien Domestication, Artificial Evolution, Planetary Engineering	Unlocks Xeno sanctuary (building), unlocks mind stem (building), unlocks Xenodrome (wonder)
Alien Evolution	3216	Artificial Evolution	N/A	Xeno Titan (unit), affinity gain (Harmony)
Alien Genetics	770	Genetic Design	N/A	1 Culture (from biowell), 1 Science (from Xenomass Well), affinity gain (Purity)
Alien Hybridization	1820	Transgenics	N/A	Units heal in miasma, affinity gain (Harmony)
Alien Lifeforms	249	Genetics	N/A	Unlocks alien preserve (building), 1 Culture (from Paddock)
Alien Materials	3216	Artificial Evolution	N/A	Unlocks Xenonova (wonder), affinity gain (Supremacy)
Alien Sciences	380	Ecology or Genetics	Alien Adaptation, Alien Ecology, Alien Ethics	Unlocks xenofuel plant (building), unlocks xenonursery (building), workers can build Xenomass Well tile improvement
Artificial Evolution	2480	Alien Ethics or Transgenics	Alien Evolution, Alien Materials	Unlocks Resurrection Device (wonder), unlocks Progenitor garden (building), 1 Science (from farms)
Artificial Intelligence	770	Fabrication or Computing	Hypercomputing, Synthetic Thought, Swarm Intelligence	Unlocks CEL Cradle (building), unlocks Surveillance Web (building), unlocks Markov Eclipse (wonder)
Astrodynamics	2480	Mechatronics	Orbital Automation, Dark Networks	Unlocks Neoplanetarium (building), unlocks Skycrane (building), unlocks Planet Carver (unit)
Augmentation	2480	Bionics	Surrogacy	Unlocks Augmentary (building), unlocks Daedalus Ladder (wonder), 1 Energy (from generators)
Autogyros	3216	Cybernetics	N/A	Unlocks CARVR (unit), affinity gain (Supremacy)
Autonomous Systems	770	Computing	N/A	Unlocks Master Control (wonder), workers can build the Node tile improvement, affinity gain (Supremacy)
Ballistic LEV	1820	Mechatronics	N/A	Unlocks Mass Driver (wonder)
Ballistics	249	Physics	N/A	Unlocks rocket battery (building), unlocks Stellar Codex (wonder)
Biochemistry	249	Chemistry	N/A	Unlocks water refinery (building), unlocks Petrochemical Plant (building)
Bioengineering	2480	Biology or Organics	Industrial Ecology, Biometallurgy	Unlocks molecular forge (building), unlocks bioglass furnace (building), unlocks Xenomalleum (wonder)
Biology	770	Chemistry	Vertical Farming, Bioengineering	Unlocks biofuel plant (building), unlocks growlab (building), workers can build the Dome tile improvement
Biometallurgy	3216	Bioengineering	N/A	1 Energy (from Mines), 1 Science (from generators), affinity gain (Supremacy)
Bionics	770	Physics	Augmentation, Servomachinery, Tissue Engineering	Unlocks bionics lab (building), unlocks institute (building), workers can build the Biowell tile improvement
Biospheres	1160	Terraforming	N/A	1 Energy (from domes), 10% city Food carried over after Growth, affinity gain (Purity)
Chemistry	95	Habitation	Biochemistry, Biology, Organics	Unlocks laboratory (building), unlocks recycler (building), workers can build the Petroleum Well tile improvement, reveals the Petroleum resource
Civil Support	1160	Fabrication	N/A	Unlocks Holomatrix (unit), affinity gain (Purity)
Climate Control	1160	Terraforming	N/A	Unlocks Weather Controller (unit), affinity gain (Supremacy)
Cognition	770	Genetics or Organics	Collaborative Thought, Social Dynamics	Unlocks neurolab (building), unlocks holosuite (building), workers can build the Academy tile improvement
Collaborative Thought	1160	Cognition	N/A	Unlocks Precog Project (wonder), affinity gain (Supremacy)
Communications	770	Computing	Field Theory, Orbital Networks	Unlocks command center (building), unlocks feedsite hub (building), unlocks Tacnet Hub (unit), workers can build the Array tile improvement
Computing	380	Engineering or Ecology	Artificial Intelligence, Autonomous Systems, Communications, Transcendental Math	Unlocks network (building), unlocks Spy Agency (wonder), unlocks Missile Rover (unit), unlocks Gunboat (unit)
Cybernetics	2480	Fabrication	Autogyros, Metamaterials	Unlocks node bank (building), unlocks Orbital Laser (unit), Phasal Transporter (unit)
Dark Networks	3216	Astrodynamics	N/A	Unlocks All-Seer (unit)
Defense Grid	249	Engineering	N/A	Unlocks defense perimeter (building), unlocks Panopticon (wonder)
Designer Lifeforms	3216	Synergetics	N/A	Unlocks Rocktopus (unit), affinity gain (Harmony)
Ecology	95	Habitation	Alien Sciences, Geophysics, Terraforming, Alien Biology	Unlocks vivarium (building), unlocks ultrasonic fence (building), unlocks Miasmic Repulsor (unit)
Engineering	95	Habitation	Computing, Defense Grid, Fabrication, Power Systems, Robotics	Unlocks thorium reactor (building), unlocks repair facility (building), unlocks Combat Rover (unit), reveals Titanium resource
Euthenics	3216	Social Dynamics	N/A	Unlocks Human Hive (wonder), affinity gain (Supremacy)
Exotic Matter	3216	Field Theory	N/A	Unlocks Ansible (wonder), affinity gain (Harmony)
Fabrication	770	Engineering, Mechatronics, Artificial Intelligence	Civil Support, Cybernetics	Unlocks alloy foundry (building), unlocks Carrier (unit), workers can build the Magrail tile improvement
Field Theory	2480	Communications	Exotic Matter	Unlocks field reactor (building), unlocks mantle (building), unlocks Quantum Computer (wonder)
Genetic Design	380	Genetics	Alien Genetics, Social Dynamics, Transgenics	Unlocks gene garden (building), unlocks cloning plant (building), unlocks Ectogenesis Pod (wonder)
Genetic Mapping	249	Genetics	N/A	Unlocks Gene Vault (wonder), affinity gain (Purity)
Genetics	95	Habitation	Alien Lifeforms, Alien Sciences, Cognition, Genetic Design, Genetic Mapping	Unlocks cytonursery (building), unlocks pharmalab (building)
Geophysics	249	Ecology	N/A	Reveals the Geothermal resource, workers can build the Geothermal Well tile improvement
Geoscaping	3216	Planetary Engineering	N/A	Unlocks Orbital Fabricator (unit), affinity gain (Supremacy)
Habitation	50	N/A	Chemistry, Ecology, Engineering, Genetics, Pioneering, Physics, Planetary Survey	Unlocks clinic (building), unlocks Old Earth relic (building), unlocks Worker (unit), unlocks Explorer (unit), unlocks Soldier (unit)
Human Conservation	3216	Social Dynamics	N/A	Unlocks Deep Memory (wonder), affinity gain (Purity)
Human Idealism	3216	Social Dynamics	N/A	Unlocks New Terran Myth (wonder)
Hypercomputing	2480	Artificial Intelligence	Hyperconductors, Neural Uploading	Unlocks hypercore (building), unlocks Emancipation Gate (project), 1 Science (from nodes)
Hyperconductors	3216	Hypercomputing	N/A	Unlocks Holon Chamber (wonder), affinity gain (Purity)
Industrial Ecology	3216	Bioengineering	N/A	1 Production (from farms), affinity gain (Purity)
Mechatronics	1160	Robotics or Fabrication	Ballistic LEV, Mobile LEV, Astrodynamics	Unlocks LEV plant (building), unlocks optical surgery (building), unlocks Crawler (wonder)
Nanorobotics	3216	Nanotechnology	N/A	1 Science (from manufactories), affinity gain (Harmony), required for Transcendence victory
Nanotechnology	2480	Robotics	Nanorobotics, Tactical LEV	Unlocks nanopasture (building), unlocks Nanothermite (wonder), unlocks Exodus Gate (project)
Neural Uploading	3216	Hypercomputing	N/A	Unlocks ANGEL (unit), affinity gain (Supremacy)
Orbital Automation	3216	Astrodynamics	N/A	Unlocks Deep Space Telescope (unit), 1 Science (from arrays)
Orbital Networks	1160	Communications	N/A	Unlocks Memetwork (wonder), unlocks Lasercom Satellite (unit)
Organics	770	Chemistry, Biology, or Cognition	Photosystems, Bioengineering, and Synergetics	Unlocks biofactory (building), unlocks mass digester (building), 1 Energy (from generators)
Photosystems	1160	Chemistry	Organics	Unlocks Solar Collector (unit), 1 Food (from Plantations), affinity gain (Harmony)
Physics	95	Habitation	Ballistics, Bionics, Robotics	Unlocks observatory (building), unlocks launch complex (building), unlocks Ranger (unit), 1 Production
Pioneering	80	Habitation	N/A	Unlocks trade depot (building), unlocks Colonist (unit), unlocks Trade Convoy (unit), unlocks Trade Vessel (unit)
Planetary Engineering	2480	Terraforming	Geoscaping, Seismic Induction	Unlocks borehole (building), 1 Production (from generators)
Planetary Survey	80	Pioneering	N/A	Allows units to embark over water, workers can build the Work Barge tile improvement
Power Systems	249	Engineering	N/A	1 Energy (from Geothermal Wells), 1 Production (from Quarries), affinity gain (Supremacy)
Protogenetics	1820	Transgenics	N/A	1 Culture (from academies), affinity gain (Supremacy)
Robotics	380	Physics or Engineering	Bionics, Mechatronics, Tactical Robotics, Swarm Robotics, Nanotechnology	Unlocks Tacjet, unlocks autoplant (building), workers can build the Firaxite Mine tile improvement, workers can build the Manufactory tile improvement
Seismic Induction	3216	Planetary Engineering	N/A	Unlocks Archimedes Lever (wonder), affinity gain (Purity)
Servomachinery	1160	Bionics	N/A	Unlocks Battlesuit (unit), affinity gain (Purity)
Social Dynamics	2480	Cognition or Genetic Design	Euthenics, Human Conservation, Human Idealism	Unlocks civil crèche (building), unlocks Soma distillery (building), unlocks terra vault (building)
Surrogacy	3216	Augmentation	N/A	Unlocks Aegis (unit), affinity gain (Purity), 10% worker speed bonus
Swarm Intelligence	1160	Artificial Intelligence	N/A	Unlocks Bytegeist (wonder), affinity gain (Harmony)
Swarm Robotics	770	Robotics	N/A	Unlocks Drone Sphere (wonder), affinity gain (Harmony), required for Transcendence victory
Synergetics	2480	Organics	Designer Lifeforms	Unlocks microbial mine (building), unlocks organ printer (building), unlocks Armasail (wonder)
Synthetic Thought	1160	Artificial Intelligence	N/A	Unlocks Cynosure (wonder), unlocks SABR (unit), affinity gain (Supremacy)
Tactical LEV	3216	Nanotechnology	N/A	Unlocks LEV Destroyer (unit), affinity gain (Purity)
Tactical Robotics	770	Robotics	N/A	Unlocks CNDR (unit), affinity gain (Supremacy)
Terraforming	770	Ecology	Biospheres, Climate Control, Planetary Engineering	Unlocks Gaian Well (building), workers can build the Terrascape tile improvement, workers can build the Floatstone Quarry tile improvement
Tissue Engineering	1160	Bionics	N/A	Units heal faster, affinity gain (Harmony)
Transcendental Math	770	Computing	N/A	Unlocks Transcendental Equation (project), starts Contact victory
Transgenics	1160	Genetic Design	Artificial Evolution, Alien Hybridization, Protogenetics	Unlocks gene smelter (building), unlocks Promethean (wonder), required for Transcendence victory
Vertical Farming	1160	Biology	N/A	1 Energy (from farms), 1 Food (from farms), affinity gain (Purity)



Quests

Quest Rules

Civilization can be extremely hard to pick up for a novice player. To make this an easier process, this version of the series has introduced a quest system. Instead of the game throwing all of the bonuses and concepts at someone from their first turn, the quest system encourages and rewards players as they develop their civilization.

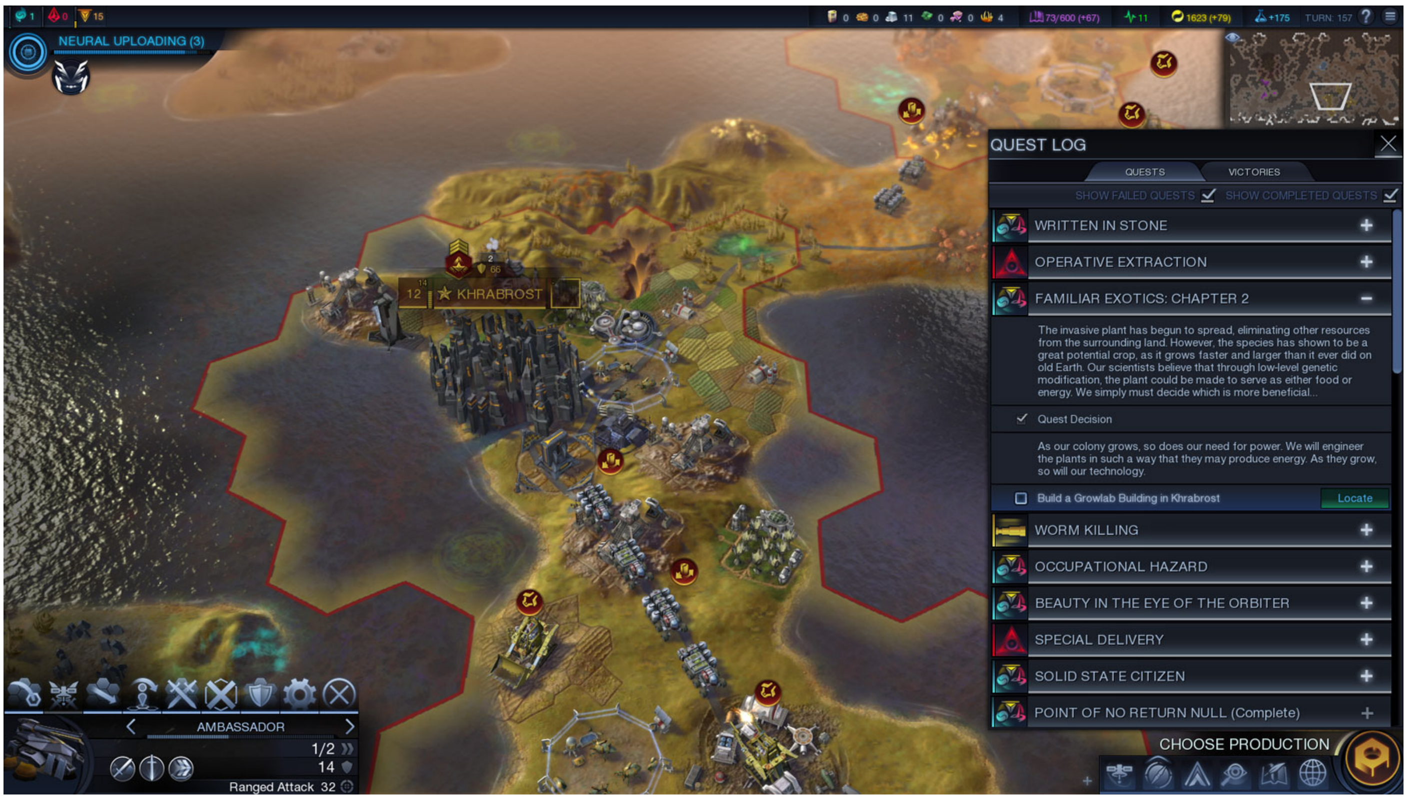
Veteran fans might shrug and say, "What's in that for me?" But have no fear: this system also allows for customization of your nation, and that's always a fun reward. You can give your buildings slightly different bonuses depending on how you want your civilization to function, making each game slightly different as you tweak your quest rewards to give exactly what you need at a given time.

This chapter explains the quest system and provides a list of the quests that are in the game.

QUEST RULES

Quests are given at varying times throughout your play session. Some of them are handed out after you've met certain precursors. Building rewards are often given after you've already completed construction of the building type in question, so you don't have to worry about them ahead of time. Others might require you to send explorers out to specific areas, to deploy spies against your enemies, or to fight various alien targets.

Use the Quests and Victories menu to see what is currently available. Click on any of the quests that are active to see what you must do to complete them. Anything that focuses on a specific area has a link that immediately zooms to that part of the map. This is helpful for finding caves or other expedition sites that your explorers need to work with.



QUEST LOG

QUESTS | VICTORIES

SHOW FAILED QUESTS ✓ SHOW COMPLETED QUESTS ✓

- WRITTEN IN STONE +
- OPERATIVE EXTRACTION +
- FAMILIAR EXOTICS: CHAPTER 2 −

The invasive plant has begun to spread, eliminating other resources from the surrounding land. However, the species has shown to be a great potential crop, as it grows faster and larger than it ever did on old Earth. Our scientists believe that through low-level genetic modification, the plant could be made to serve as either food or energy. We simply must decide which is more beneficial...

✓ Quest Decision

As our colony grows, so does our need for power. We will engineer the plants in such a way that they may produce energy. As they grow, so will our technology.

☐ Build a Growlab Building in Khrabrost | Locate

- WORM KILLING +
- OCCUPATIONAL HAZARD +
- BEAUTY IN THE EYE OF THE ORBITER +
- SPECIAL DELIVERY +
- SOLID STATE CITIZEN +
- POINT OF NO RETURN NULL (Complete) +

Once you complete all of the conditions for a quest, you receive your reward. This might be free resources or a permanent upgrade to some of your buildings. If there are choices between two different reward types, an icon pops up to let you quickly go and choose the one you want. Evaluate your options carefully; you can't redo your selection once it's accepted.

Each game, you get the same quests in most regards. Only affinity quests throw a spin at you; these vary depending on choices that you make with your nation. They'll branch out and let you specify whether you're heading toward Harmony, Purity, or Supremacy. Many of the affinity quests have follow-ups that reflect the consequences of your actions.

Quests

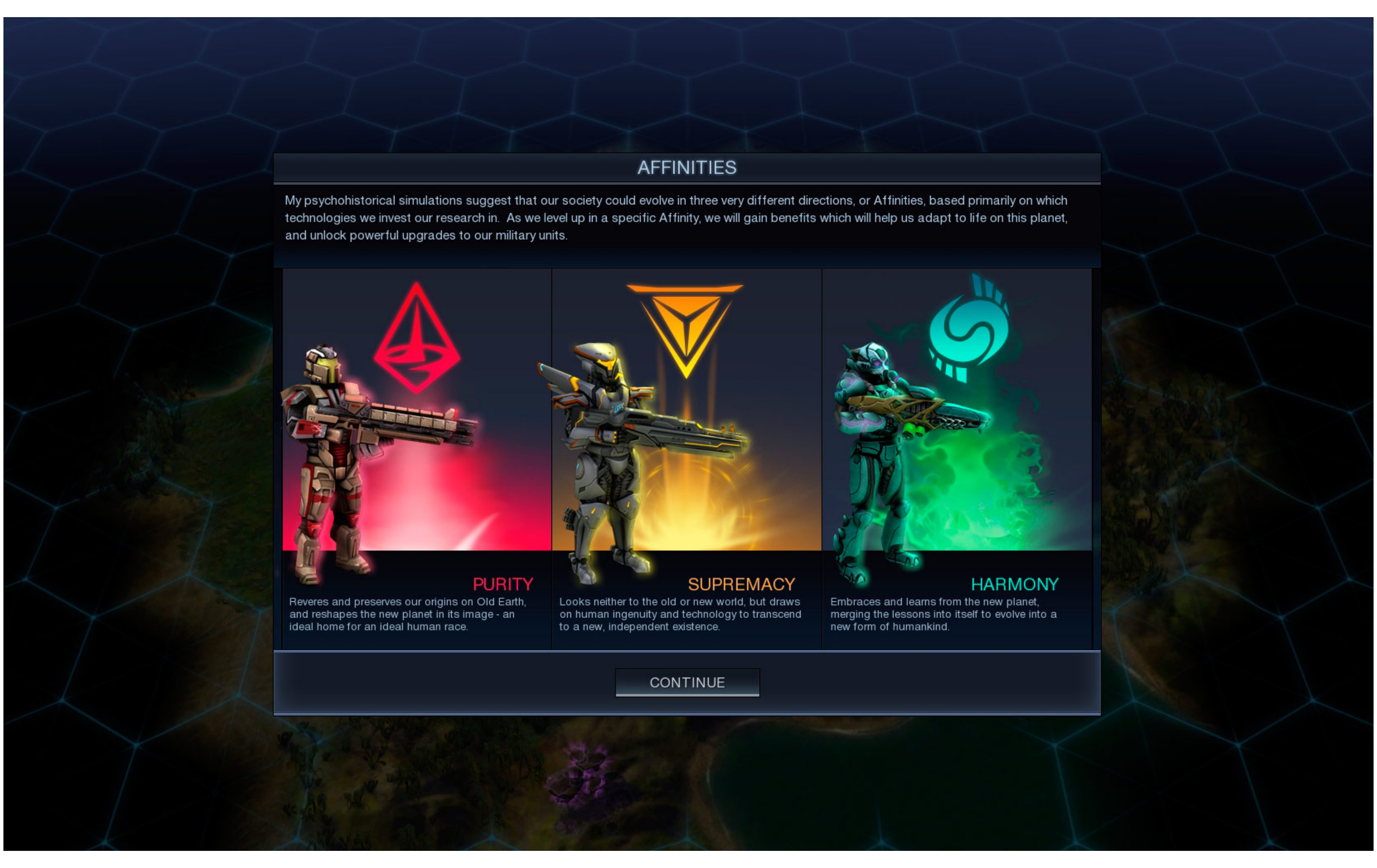
Master Quest List

Master Quest List

Quest Name	Requirements	Rewards
A Biological Imperative	Construct a biofuel plant	+1 Energy or +1 Production from biofuel plants
A Tangled Web	Construct a network	Free maintenance or +1 Culture for networks
A World of Pure Imagination	Construct a holosuite	+2 Culture from holosuites or a free virtue
Acclimation	Construct specific buildings in a chosen city	N/A
All That We Can Be	Construct an augmentery	+10% Health or +5% total yields from augmenteries
All the Small Things	Construct a microbial mine	+1 Energy/Harmony level or +1 Science/Harmony level
Always On	Construct a defense perimeter	+10 City Hit Points or free maintenance for defense perimeters
Ancillary Adams	Clear forests from all tiles surrounding your cities	Adds Supremacy Experience and a free colonist
As with Man	Supremacy event	Adds Supremacy Experience and bonus Culture
Augmentation or Humanity	Event with the augmented	Adds Supremacy Experience or adds Purity Experience
Automatic Gratification	Construct an autoplant	+1 trade route or +1 Energy from autoplants
Beauty in the Eye of the Orbiter	Launch 2 satellites to investigate geoglyphs	Increased Production or Energy in the chosen city
Beauty in the Eye of the Orbiter: Part II	Build an expedition at the marked site	Adds affinity Experience and bonus Science
Better Living through Chemistry	Construct a pharmalab	+1 Science or +1 Health from pharmalabs
Big Brother	Construct a surveillance web	Covert agents advance faster in rank or +10 City Hit Points from surveillance webs
Blood Bank	Construct a clinic	+15 City Hit Points or +1 Health
By Our Powers Combined	Construct a CEL cradle	+1 covert agent or +10% Food carried over after Growth in cities with CEL cradles
Civil Skies	Found (or capture) a city next to Floatstone	Improves the city's population and Energy or its Production and Science
Cultural Burden	Early game event; create an expedition on a nearby crash site and then drain Xenomass	Adds Harmony Experience, Purity, or Supremacy Experience
Engineering the Future	Construct a repair facility	+1 orbital coverage or +5% military Production for repair facilities
Escape Velocity	Construct a launch complex	+1 orbital coverage or +10% orbital Production from launch complexes
Familiar Exotics	Early game event	Adds Harmony Experience or Purity and Supremacy Experience
Familiar Exotics: Harmony Part II	Triggers after you choose the Harmony route in Part I	You receive Energy or bonus population
Familiar Exotics: Purity/Supremacy Part II	Allow the plant to spread in Part I, and construct a pharmalab when asked	Adds bonus Energy and Science and adds Purity Experience or Supremacy Experience
Filling the Void	Construct a field reactor	+5% Energy or +2 orbital coverage for field reactors
Food for Thought	Construct a civil creche	+5% Food or +10% worker speed from civil creches
For Your Eyes Only	Research Computing	Founds your spy program
Forged in Fire	Build a Firaxite Mine	+2 Production from Firaxite Mines or +4 Firaxite resources
Found an Outpost	Found your first outpost	+1 soldier (at the site of the new outpost)
Fresh Specimens	Kill 10 alien units	Awards bonus Culture
Fueling the Fire	Construct a Petroleum Well	+2 Production or +2 Culture from Petroleum Wells
Fueling the Future	Construct a xenofuel plant	Gain 1,000 Energy or +3 Energy and +2 Production from Xenomass Wells
Garden of Eden	Construct a gene garden	+3 Energy or +1 Health from gene gardens
Gifts from Home	Find 2 Resource Pods	Gain bonus Science
Growth Potential	Create a trade route	N/A
Hearts and Minds	Construct a feedsite hub	+1 spy or +10% worker speed
Home Grown	Construct a xenonursery	+450 Science or +5 Xenomass resources
Hostile Takeover	Destroy a rival station	N/A
How We Remember	Research Pioneering, build Old Earth relic	+1 Energy or +1 Culture for Old Earth relics
Leadfoot Soldier	Construct a Xeno Sanctuary in a specific location	Adds Harmony Experience and +5 Healing to all units
Miasma for the Soul	Construct a growlab	450 Energy or +1 population in every city
Nature's Potential	Construct a Gaian Well	+2 Energy or +1 Production from Gaian Wells
No Reservations	Construct a Xeno Sanctuary	+2 Culture or +2 Food from Xeno Sanctuaries
Obstacles of the Past	Construct a cloning plant	10% of Food carried over after Growth or +1 Health from cloning plants
Occupational Hazard	N/A	N/A
Occupational Hazard: Part II (Purity)	Destroy 2 alien nests	Adds Purity Experience and population
Occupational Hazard: Part II (Sup/Har)	Construct 2 alien preserves	Adds Harmony Experience or Supremacy Experience
Of Mites and Men	Construct a nanopasture	+10% Food or +10% Energy from nanopastures
Operative Extraction	Have a spy steal Science	N/A
Organic Growth	Construct a cytonursery	+5% military Production or +1 Production for cytonurseries
Point of No Return Null	Construct a neurolab	??? Editme (broken)
Productive Progress	Construct an LEV plant	+2 Production or +2 Energy at LEV plants
Pure Advantage	Construct a bionics lab	Affinity Experience and Science
Quality or Quantity	Construct an alloy foundry	+2 Production from Titanium Mines or 4 Titanium resources
Reconstituted Regulation	Construct a biofactory	+1 Food or +1 Culture from biofactories
Redacted	Perform a covert operation of 4 Intrigue or higher	+1 spy and free Culper Lodge
Safe behind Walls	Construct an ultrasonic fence	+1 repel range or make convoys immune to aliens
Second Sight	Construct an optical surgery	+1 Visibility for military units or +2 Science from optical surgeries
Secret Ingredients	Construct a Soma distillery	+10% Health or +5% Culture from Soma distilleries
Secure Compounds	Build a quarry	N/A
Sky Mine	Purity event	Adds Purity Experience and either +1 Food from Work Barges or bonus Culture
Sky Mine: Part II	Build an expedition at the crater if you allowed the asteroid to fall	Adds Purity Experience and bonus Production in all your cities
Solid State Citizen	Early game event; build an expedition at a marked crash site, and then found an outpost	Adds Supremacy Experience or adds Purity Experience
Solid State Citizen: Harmony Branch	Timed event after turning away the augmented	Energy and Science or Harmony Experience and Energy
Special Delivery	Perform "Establish Network" and then "Dossier Delivered"	+1 covert agent!
Spymaster and Commander	Construct a command center	+15 City Strength or +1 spy from command centers
Startographer	Launch 1 deep space telescope	Adds Supremacy Experience and reveals coastlines
Station Charter	Event	Decide between two different stations to uncover
Steel Synapse	Build CEL cradles in 5 cities	Supremacy Experience and bonus Science
Strength in Numbers	Construct a molecular forge	+10% Production or +10% Science from molecular forges
Tastes like Cardboard	Construct a mass digester	+1 Production or +1 Food from mass digesters
The Creative Spark	Construct a thorium reactor	+2 Energy or +1 Production from thorium reactors
The Ghost in the Machine	Construct a node bank	+10% City Hit Points or +10% City Strength from node banks
The Heart of a Nation	Construct an organ printer	+10% City Health from organ printers or +10 to unit Healing
The Highest Heights	Construct a skycrane	+2 Production from Floatstone Quarries or +4 Floatstone resources from skycranes
The Meaning of Life	Construct a Progenitor garden	+10% Health or +5% Science from Progenitor gardens
The More You Know	Construct an institute	+5% Science from institutes or 1 free Technology
The Observable Universe	Construct an observatory	+2 City Strength or +2 naval unit Movement from observatories
The Power Within	Construct a borehole	+5% Production or +5% Energy from boreholes
The Scientific Method	Construct a laboratory	Explorers gain 1 expedition module or +1 Science from laboratories
The Stars Our Destination	Construct a neoplanetarium	+2 orbital coverage or +10% Production from neoplanetariums
The Think Tank	Construct a neurolab	+1 Health or +10% military Production from neurolabs
The Time Capsule	Construct a terra vault	+5% Culture or +5% Science from terra vaults
The Vital Frontier	Construct a vivarium	+1 Science or +1 Food from vivariums
Times of Plenty	Construct a trade depot	+1 Production or +1 Energy for trade depots
Too Much Gun	Construct a rocket battery	+5 City Strength or +1 City Orbital Strike Range from rocket batteries
Unnatural Selection	Construct a gene smelter	+2 Science or +1 Health from gene smelters
We can Rebuild Them	Construct a bionic lab	+1 Science or +1 Culture from bionic labs
We have the Power	Construct a mantle	+1 Science/Purity level or +1 Energy/Purity level
We have the Technology	Construct a hypercore	+1 Science/Supremacy level or +1 Culture/Supremacy level
What Goes Around	Construct a recycler	+10% worker speed or +1 Food from recyclers
When the Levees Broke	Construct a water refinery	+1 Food or free maintenance for water refineries
Worm Killing	Kill 1 Siege Worm	Receive bonus Science, Culture, and Energy
Written in Stone	Explore to find an ancient tomb, build an expedition there, and then send a military unit into the tomb	Grants massive affinity Experience and bonus Science
Zoology	Construct an alien preserve	+5 Healing for all units or +1 Science and Energy from alien preserves

Affinities
Overview

This chapter explains the Affinity system, one of the newest game concepts in *Civilization: Beyond Earth*. This controls a variety of bonuses that both your colony and its military forces receive. The more you master an Affinity, the easier it becomes to defend yourself and dominate your rivals.



AFFINITIES

My psychohistorical simulations suggest that our society could evolve in three very different directions, or Affinities, based primarily on which technologies we invest our research in. As we level up in a specific Affinity, we will gain benefits which will help us adapt to life on this planet, and unlock powerful upgrades to our military units.

PURITY: Reveres and preserves our origins on Old Earth, and reshapes the new planet in its image - an ideal home for an ideal human race.

SUPREMACY: Looks neither to the old or new world, but draws on human ingenuity and technology to transcend to a new, independent existence.

HARMONY: Embraces and learns from the new planet, merging the lessons into itself to evolve into a new form of humankind.

There are three Affinities in this game: Harmony, Purity, and Supremacy. If you don't know a unit specifically, you can tell a great deal just by the color of the people or machines in question. White units are members of the early game; they do not have an Affinity yet. Blue-green units are Harmony-based. Red and beige units follow the path of Purity. Yellow and black units are devoted to Supremacy.

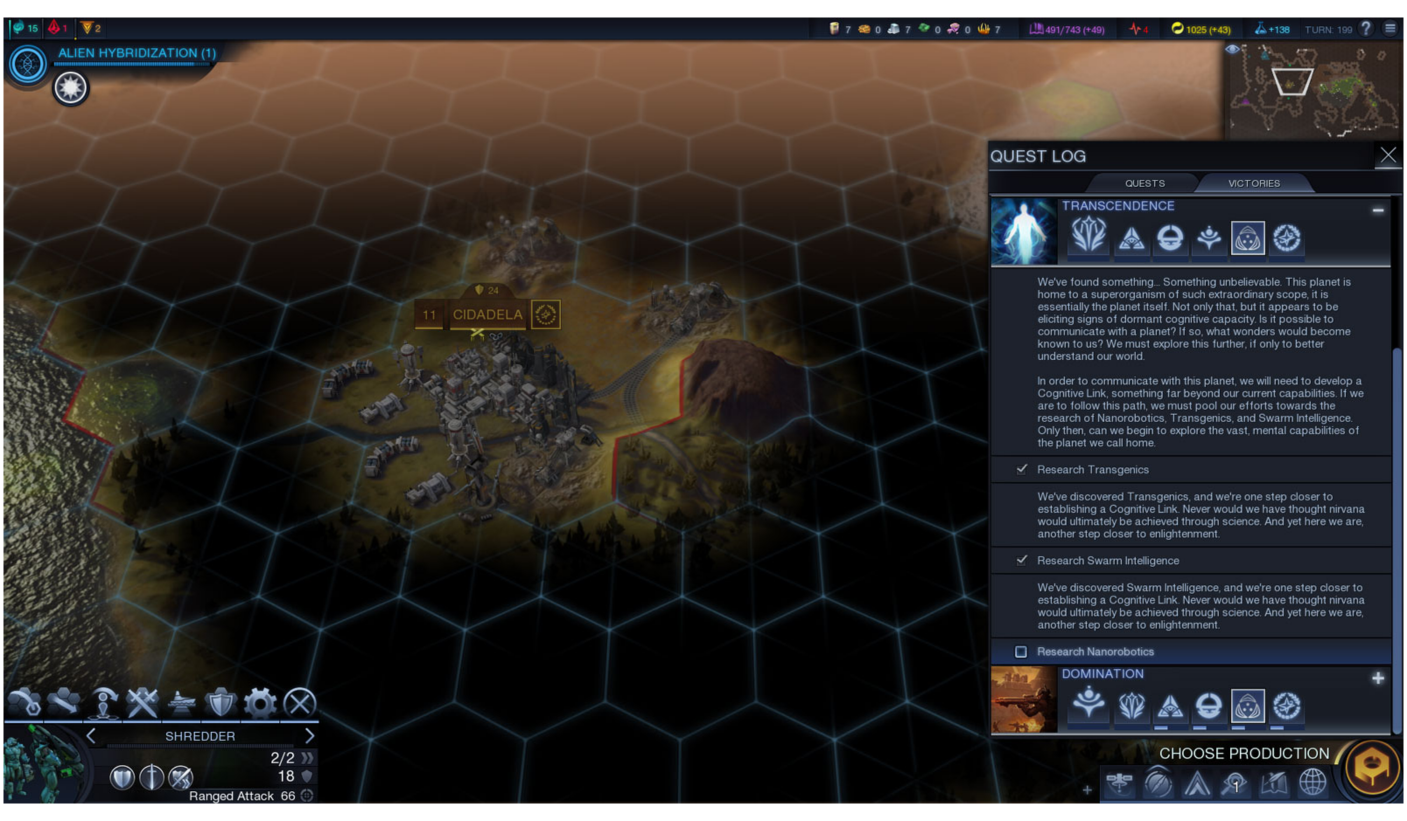
All colonies begin without any Affinity experience whatsoever. From there, they can grow in one or all three of the Affinities. Your colony's highest Affinity value is its dominant one. This starts to become significant around midgame, when you have an affinity at or above Level 6.

ALIEN HYBRIDIZATION (7)
USPEKH
Farm
Grassland
TURN: 194
WORKER
UNIT IS OUT OF MOVES
0/2
CHOOSE PRODUCTION

Research in most *Civilization* games is what determines the power of your Units; the more technology you have, the better your forces become as they train with increasingly improved weaponry. Things are slightly different here; Units receive tiers of Upgrades at specific Affinity levels. Some Units are locked at higher points in the technology web, but Upgrades are a huge aspect of gameplay. When an Upgrade is chosen, it is immediately applied to all units of that type--you will not have to upgrade individual units manually or pay any cost.

Though Affinity is tied to certain technologies, there are multiple ways to advance in this system. As such, you could be a technological powerhouse and still not have the most modern military force in the game. Things are a little more complicated than that.

Reaching a high Affinity level is, in some ways, even more important than mastering all available technologies. Not only is this important for your military, but it's also the way to unlock various end-game goals. Each Affinity has its own way to win the game. Everyone can try to achieve a Contact or Domination victory, but high Affinity values also unlock Transcendence, Promised Land, and Emancipation as victory conditions. The more paths to victory you understand, the more likely it is to achieve one of them. Getting to higher Affinity quickly substantially improves your ability to win the game, whether you're the strongest nation or not!



ALIEN HYBRIDIZATION (1)
CIDADELA
TURN: 199
QUEST LOG
QUESTS
VICTORIES
TRANSCENDENCE

We've found something... Something unbelievable. This planet is home to a superorganism of such extraordinary scope, it is essentially the planet itself. Not only that, but it appears to be eliciting signs of dormant cognitive capacity. Is it possible to communicate with a planet? If so, what wonders would become known to us? We must explore this further, if only to better understand our world.

In order to communicate with this planet, we will need to develop a Cognitive Link, something far beyond our current capabilities. If we are to follow this path, we must pool our efforts towards the research of Nanorobotics, Transgenics, and Swarm Intelligence. Only then, can we begin to explore the vast, mental capabilities of the planet we call home.

☑ Research Transgenics

We've discovered Transgenics, and we're one step closer to establishing a Cognitive Link. Never would we have thought nirvana would ultimately be achieved through science. And yet here we are, another step closer to enlightenment.

☑ Research Swarm Intelligence

We've discovered Swarm Intelligence, and we're one step closer to establishing a Cognitive Link. Never would we have thought nirvana would ultimately be achieved through science. And yet here we are, another step closer to enlightenment.

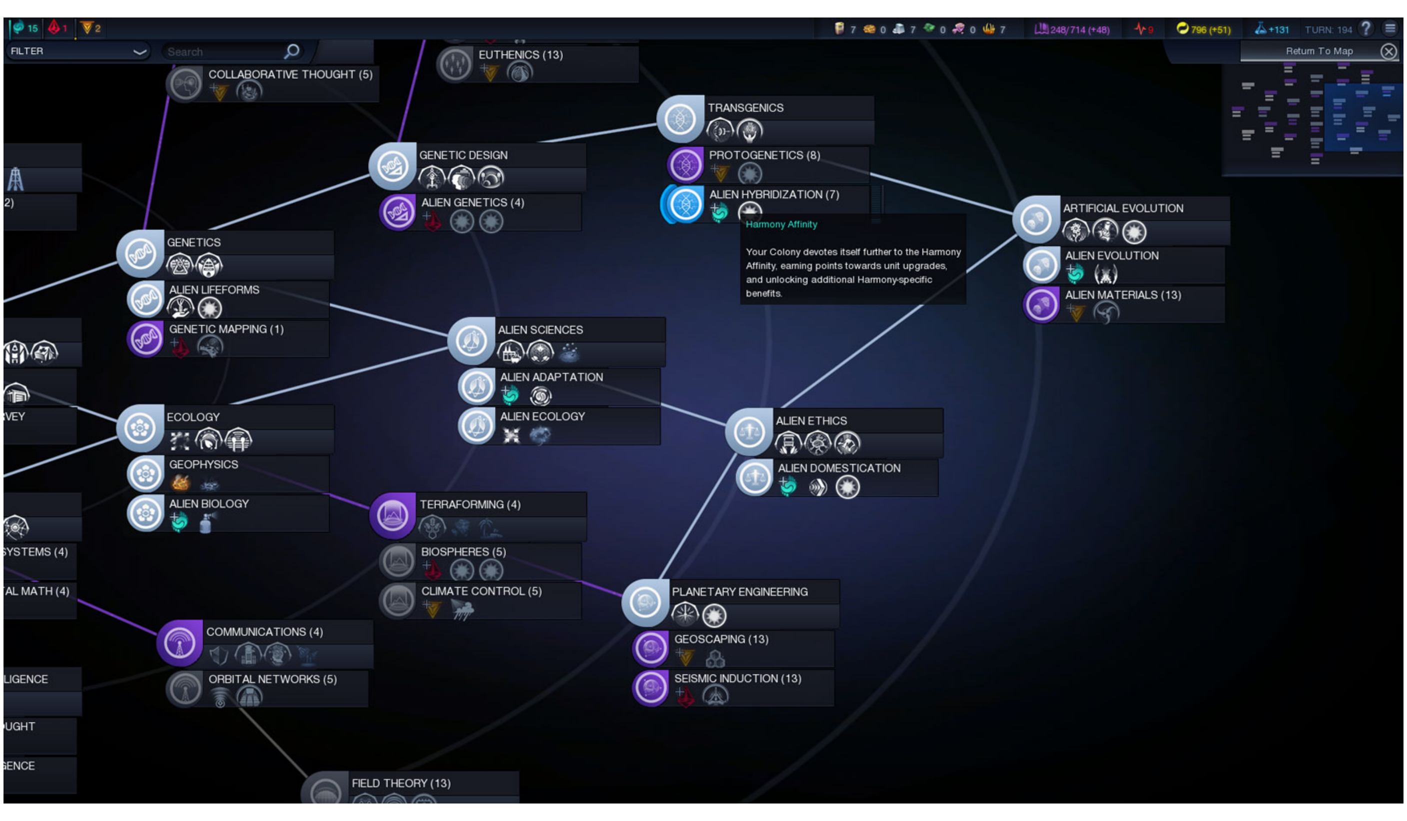
☐ Research Nanorobotics

DOMINATION
SHREDDER
2/2
18
Ranged Attack 66
CHOOSE PRODUCTION

GAINING AFFINITY EXPERIENCE

Gaining levels in an Affinity requires experience of that same category. To see how much experience is needed, highlight the Affinity levels in the upper-left corner of the screen when in-game. This also displays the various bonuses the player receives when specific Affinity levels are reached. A player can gain experience in all three Affinity categories, even after becoming dominant with one of them, and gain bonuses from each. However, becoming dominant in one Affinity reduces the amount of experience gained in the others.

There are three ways to gain experience and increase Affinity level. The most reliable and consistent is Research. Look through the technology web, and note the blue-green, red, and yellow symbols that are located on many leaf technologies. Those are Affinity experience! Completing those technologies gets you a certain amount of experience in the displayed Affinity category. Highlight the technology to see how much experience it will provide.



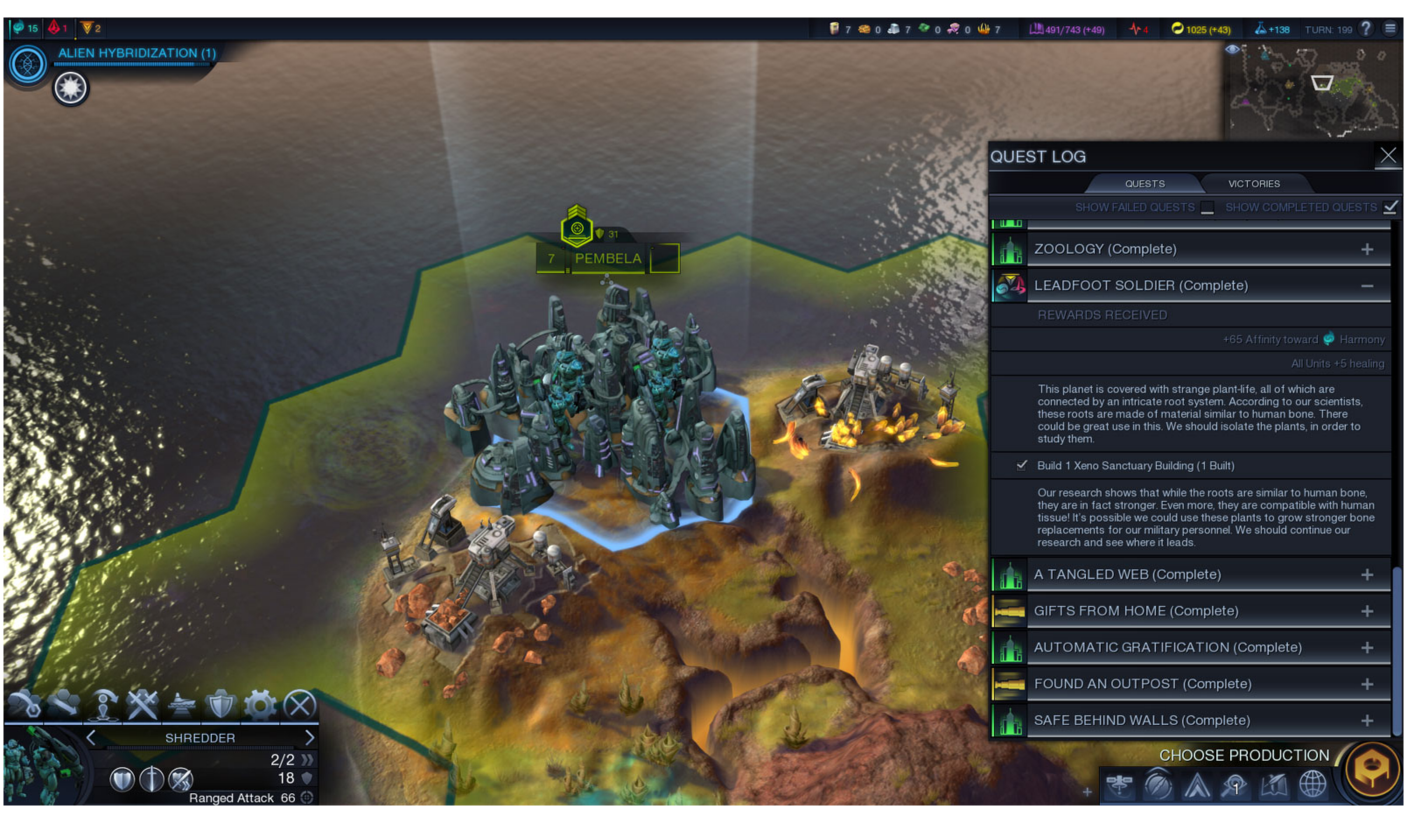
FILTER
Search
Return To Map
TURN: 194
COLLABORATIVE THOUGHT (5)
EUTHENICS (13)
TRANSGENICS
GENETIC DESIGN
PROTOGENETICS (8)
ALIEN GENETICS (4)
ALIEN HYBRIDIZATION (7)
ARTIFICIAL EVOLUTION
ALIEN EVOLUTION
ALIEN MATERIALS (13)
GENETICS
ALIEN LIFEFORMS
GENETIC MAPPING (1)
ALIEN SCIENCES
ALIEN ADAPTATION
ALIEN ECOLOGY
ECOLOGY
GEOPHYSICS
ALIEN BIOLOGY
ALIEN ETHICS
ALIEN DOMESTICATION
TERRAFORMING (4)
BIOSPHERES (5)
CLIMATE CONTROL (5)
PLANETARY ENGINEERING
GEOSCAPING (13)
SEISMIC INDUCTION (13)
COMMUNICATIONS (4)
ORBITAL NETWORKS (5)
FIELD THEORY (13)

Harmony Affinity

Your Colony devotes itself further to the Harmony Affinity, earning points towards unit upgrades, and unlocking additional Harmony-specific benefits.

Another method for Affinity advancement is the Quest system. Some events appear occasionally throughout the game, providing Quests that should be followed to their conclusion. The choices you make for these special Quests are often along Affinity lines. Make choices that are aligned with a desired Affinity to gain experience in that category. These Quests have an icon with all three Affinity symbols. Prioritize these above all other quests, as they often take more time and require exploration. That's fine; it's worth your investment.

The third and final way to gain experience is from Expeditions. Your Explorers are vital to the colony's progress. They sometimes get random Resource Pods with small yields, but that's only the tip of the iceberg. Expeditions are the way to get the serious bonuses. These can provide a sum of Affinity experience or even a full Affinity level (if you're lucky), and they sometimes tie into the Quests previously mentioned.



ALIEN HYBRIDIZATION (1)
PEMBELA
TURN: 199
QUEST LOG
QUESTS
VICTORIES
SHOW FAILED QUESTS ☐
SHOW COMPLETED QUESTS ☑

ZOOLOGY (Complete)

LEADFOOT SOLDIER (Complete)

REWARDS RECEIVED

+65 Affinity toward Harmony

All Units +5 healing

This planet is covered with strange plant-life, all of which are connected by an intricate root system. According to our scientists, these roots are made of material similar to human bone. There could be great use in this. We should isolate the plants, in order to study them.

☑ Build 1 Xeno Sanctuary Building (1 Built)

Our research shows that while the roots are similar to human bone, they are in fact stronger. Even more, they are compatible with human tissue! It's possible we could use these plants to grow stronger bone replacements for our military personnel. We should continue our research and see where it leads.

A TANGLED WEB (Complete)

GIFTS FROM HOME (Complete)

AUTOMATIC GRATIFICATION (Complete)

FOUND AN OUTPOST (Complete)

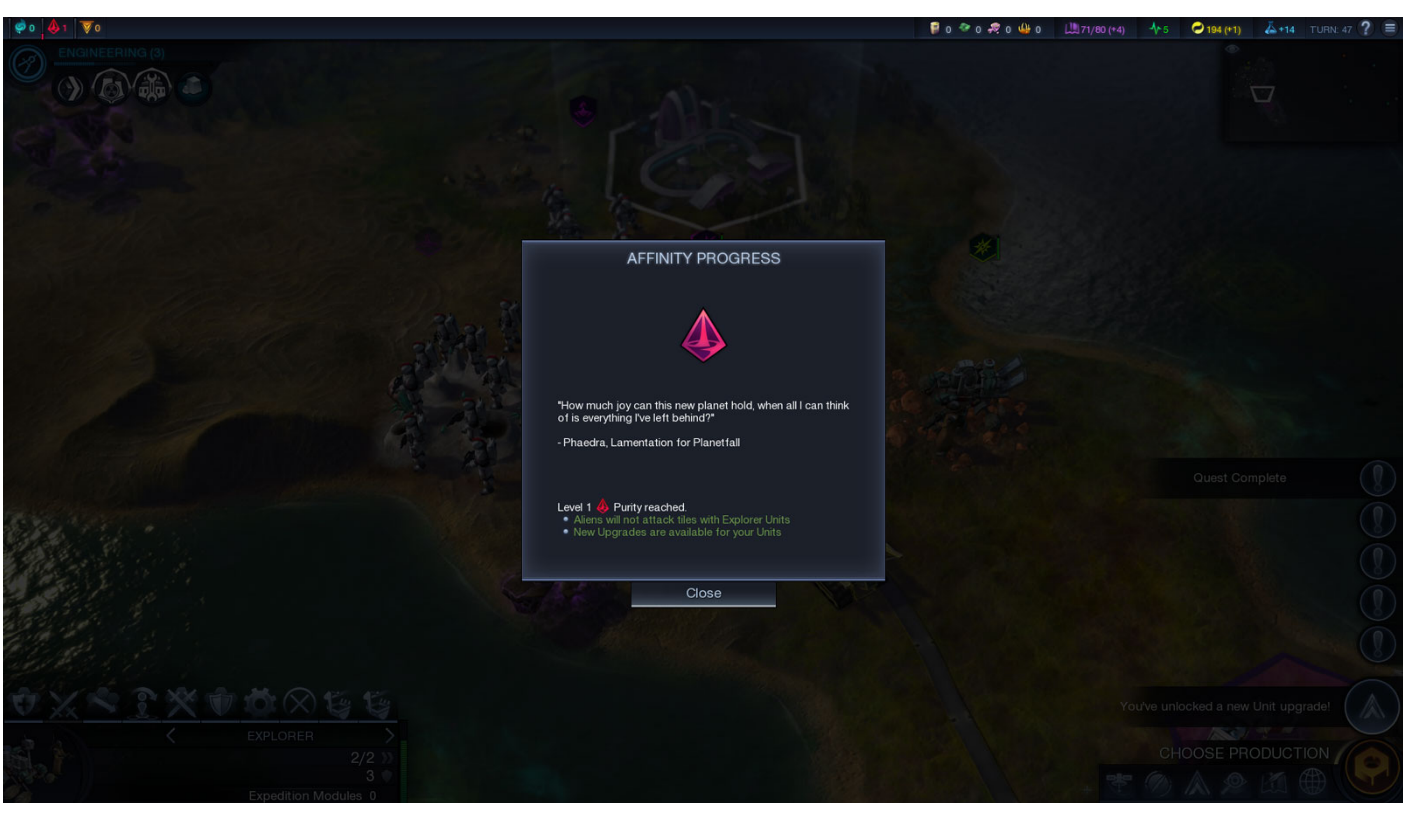
SAFE BEHIND WALLS (Complete)

SHREDDER
2/2
18
Ranged Attack 66
CHOOSE PRODUCTION

CHOOSING A DOMINANT PATH

You should often choose your intended Affinity very early in the game. The sooner you pick one, the easier it is to know which to follow during Quest choices. You also can hurry toward Technologies that give one kind of Affinity experience over the others.

It's fine to grab Affinity experience all over the board; the bonuses you get are really cool. Just make sure to have one Affinity in mind as your preferred type. Now, you'll learn more details about the upsides and downsides of the three Affinities so that you know what you're getting into.



AFFINITY PROGRESS

"How much joy can this new planet hold, when all I can think of is everything I've left behind?"

- Phaedra, Lamentation for Planetfall

Level 1 Purity reached.
- Aliens will not attack tiles with Explorer Units
- New Upgrades are available for your Units

ENGINEERING (3)
TURN: 47
Close

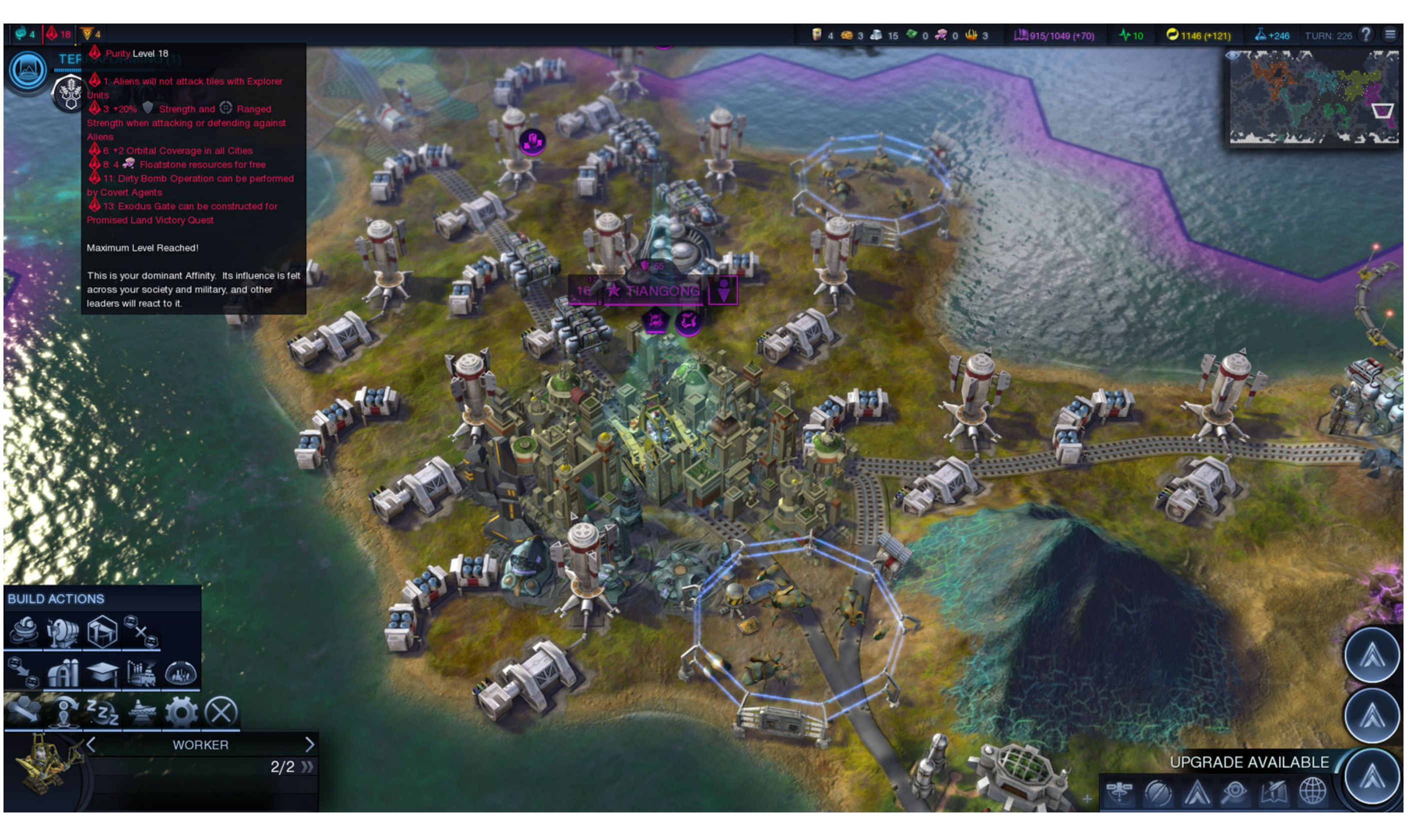
Affinities

Three Paths to Victory

HARMONY

Bonuses

- **Level 1**: Alien aggression levels return to neutral twice as quickly.
- **Level 3**: Units take 5 HP less damage from Miasma.
- **Level 6**: Units heal 5 HP in Miasma.
- **Level 8**: 4 Xenomass resources for free.
- **Level 11**: Call Worm Strike Operation can be performed by Covert Agents.
- **Level 13**: Mind Flower can be constructed for Transcendence Victory Quest.



Purity Level 18

1: Aliens will not attack tiles with Explorer Units

3: +20% Strength and Ranged Strength when attacking or defending against Aliens

6: +2 Orbital Coverage in all Cities

8: 4 Floatstone resources for free

11: Dirty Bomb Operation can be performed by Covert Agents

13: Exodus Gate can be constructed for Promised Land Victory Quest

Maximum Level Reached!

This is your dominant Affinity. Its influence is felt across your society and military, and other leaders will react to it.

Harmony is about finding the ways of the new world and adjusting to live with them instead of fighting against them. You are going to benefit from Miasma instead of hating the stuff, and healing becomes a major aspect of your military. Harmony has the weaker Units than Purity in direct battle, but Research into leaf technologies with Harmony experience often gets you more survivability over time. This healing helps Harmony players survive long engagements and lose fewer units during combat.

This makes it important to fight defensively as a Harmony player. Lure opponents into Miasma, where you have greater advantages over them in the mid and late game. Your units eventually get major bonuses to Combat Strength when fighting in Miasma, and your enemies may be taking damage over time just for sitting in the goop.

Core Tactics For Harmony

- Spread Miasma all over the world.
- Wait for enemy military forces to enter your territory, defeat them there where it's much easier, and then expand once adversaries are weaker.
- Be patient, and try to draw out warfare.

ALIEN HYBRIDIZATION (2)
USPEKH
MARAUDER
1/2
64
A UNIT NEEDS ORDERS
TURN: 198

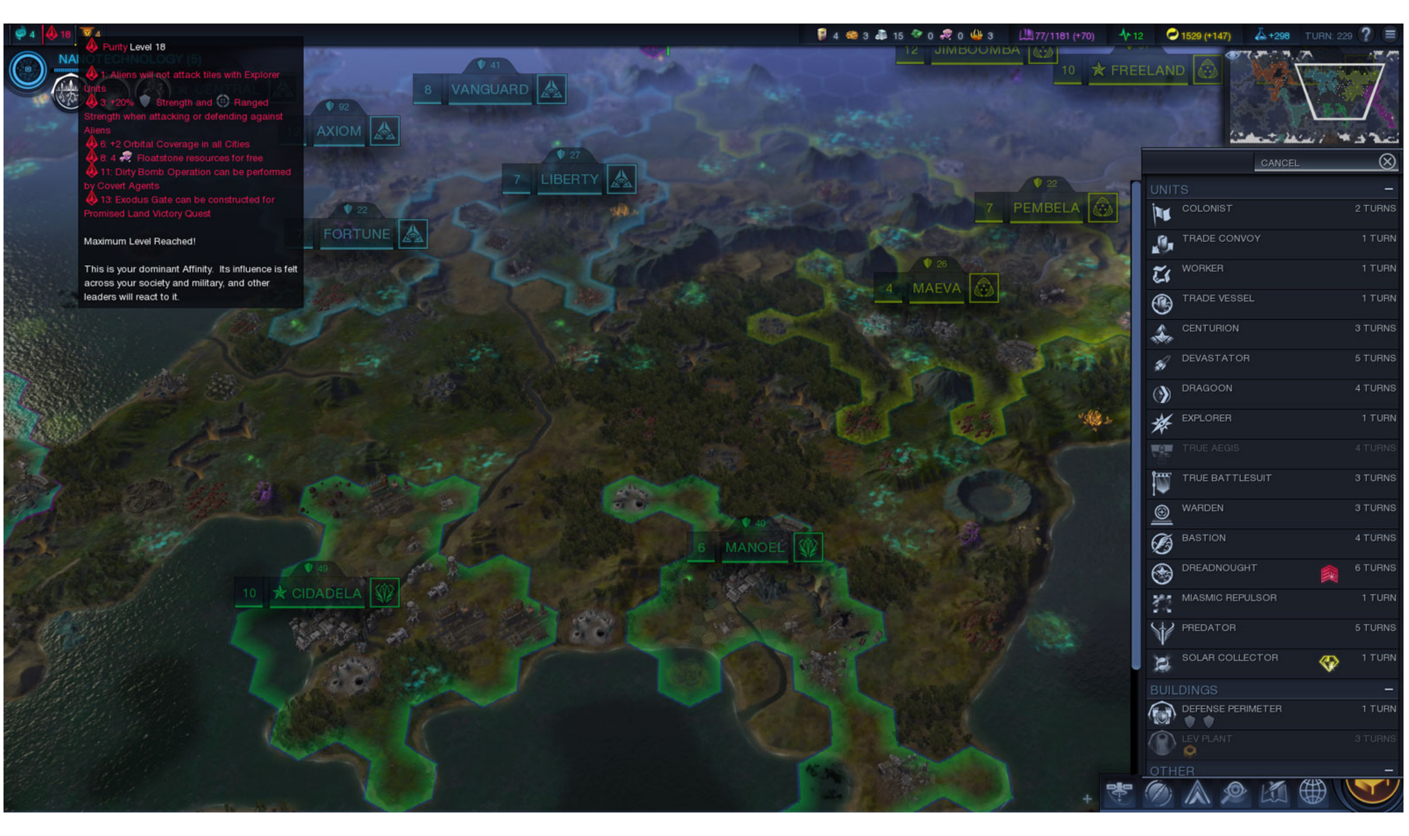
Defensive players are most likely to enjoy the Harmony line. The military units you get are somewhat harder to use than their Purity and Supremacy equivalents. Harmony gets much more interesting powers, but it takes time and practice to set them up correctly. You can push enemy units around, heal through kills, or have some of your units explode on death. Neat stuff!

Harmony is also very effective at getting large city populations. Their Biowell tile improvement provides Food and Health, making it a Farm that sustains both the city's growth and its bursting citizenry. This is invaluable when combined with buildings that have Specialist slots.

PURITY

Bonuses

- **Level 1**: Aliens will not attack tiles with Explorer Units.
- **Level 3**: +20% Strength and Ranged Strength when attacking or defending against aliens.
- **Level 6**: +2 Orbital Coverage in all Cities.
- **Level 8**: 4 Floatstone resources for free.
- **Level 11**: Dirty Bomb Operation can be performed by Covert Agents.
- **Level 13**: Exodus Gate can be constructed for Promised Land Victory Quest.



Purity Level 18

1: Aliens will not attack tiles with Explorer Units

3: +20% Strength and Ranged Strength when attacking or defending against Aliens

6: +2 Orbital Coverage in all Cities

8: 4 Floatstone resources for free

11: Dirty Bomb Operation can be performed by Covert Agents

13: Exodus Gate can be constructed for Promised Land Victory Quest

Maximum Level Reached!

This is your dominant Affinity. Its influence is felt across your society and military, and other leaders will react to it.

UNITS	
COLONIST	2 TURNS
TRADE CONVOY	1 TURN
WORKER	1 TURN
TRADE VESSEL	1 TURN
CENTURION	3 TURNS
DEVASTATOR	5 TURNS
DRAGOON	4 TURNS
EXPLORER	1 TURN
TRUE AEGIS	4 TURNS
TRUE BATTLESUIT	3 TURNS
WARDEN	3 TURNS
BASTION	4 TURNS
DREADNOUGHT	6 TURNS
MIASMIC REPULSOR	1 TURN
PREDATOR	5 TURNS
SOLAR COLLECTOR	1 TURN
BUILDINGS	
DEFENSE PERIMETER	1 TURN
LEV PLANT	3 TURNS

Purity focuses on maintaining what has made humanity great in the past. It's often at odds with the aliens and the ways of the new world. You're likely going to exterminate aliens, destroy their nests, and reduce the miasma to a wisp of what it once was. However, being friendly with Aliens is an option for any Affinity. Purity units have high Combat Strength, very strong firepower even when alone, and can go on the offensive without any trouble. Purity is a slightly easier affinity to play because of its self-reliant units and highly defensible cities.

Purity has both strong defensive and offensive units. Their Rangers become wickedly effective at defending cities in the midgame. They have fast raiding units with Combat Rovers that become very effective against cities, and there are multiple powerful ranged units in the late game that are hard to take down.

Core Tactics For Purity

- Use your superior one-on-one units to try launching fast campaigns against weaker colonies.
- Avoid drawn-out battles against large groups of Supremacy units or entrenched Harmony players; win fast, or go home and wait for a good peace offering.
- Use early fighting against aliens and their nests to toughen your military with free Veterancy bonuses.

ASTRODYNAMICS (1)
SAIRA
Forest, Plains
DRAGOON
3/4
76
CHOOSE PRODUCTION
TURN: 265

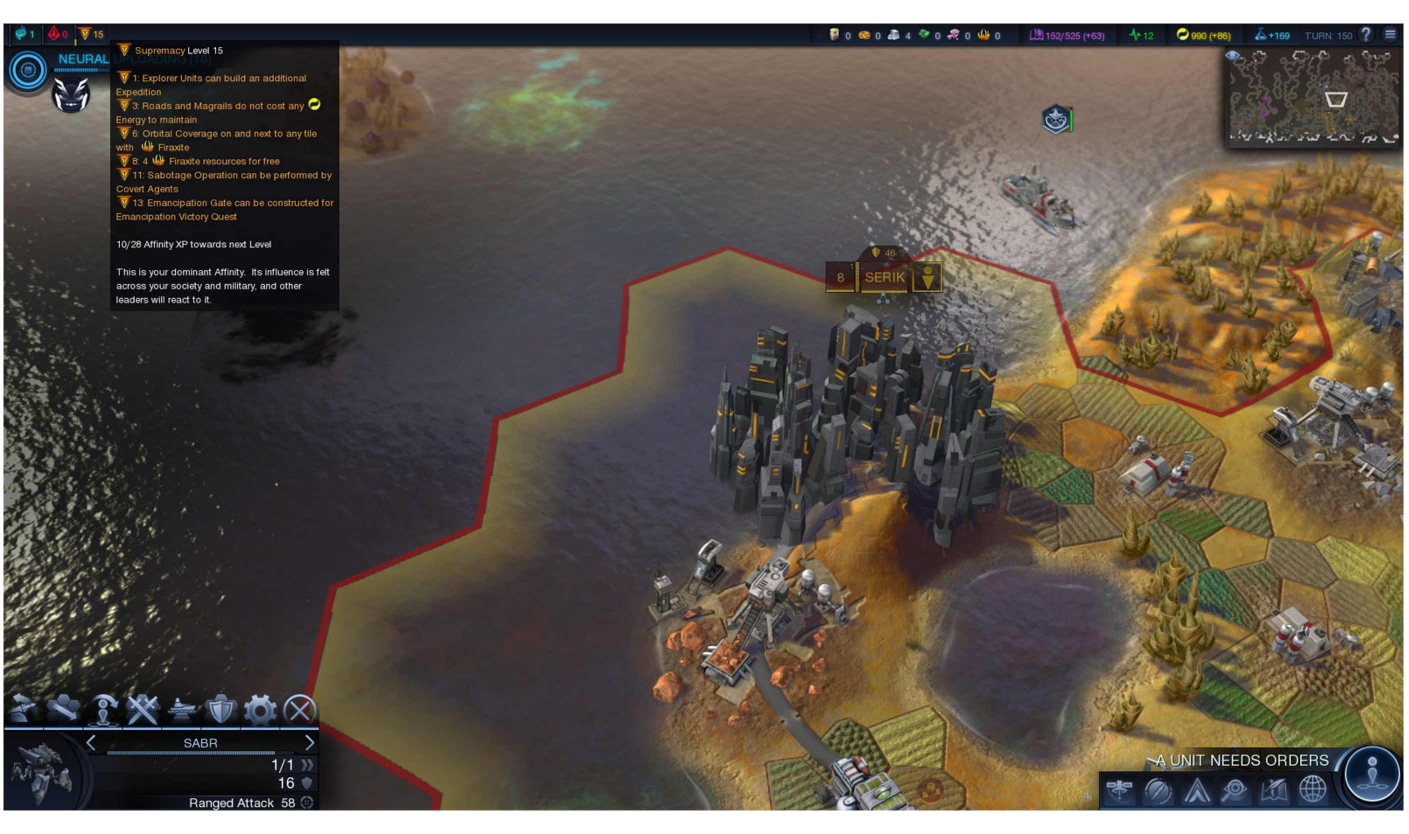
Aggressive players are likely to love Purity. They have a great tendency toward blitzkrieg warfare, and their units can be used to take land quickly against any opponent who doesn't prepare well ahead of time. Scout constantly to look at your neighbor's borders. This gives you information about their combat readiness, but that's not all: you also prevent your enemies from knowing when the attacking is imminent. Keep your units mobile, like they're always ready to go. Don't have them lean on people's borders, because that is diplomatically negative, but have a force close to each border so that no one knows when you're going to strike.

Defensive players will love the Dome tile improvement, which grants +10 City HP to whichever city is working the tile. Stacking several of these per city greatly increases their survivability against any Affinity. The Dome also grants Culture, making Purity a powerhouse for gaining Virtues.

SUPREMACY

Bonuses

- **Level 1**: Explorer units can build an additional Expedition.
- **Level 3**: Roads and Magrails do not cost any Energy to maintain.
- **Level 6**: Orbital Coverage on and next to any tile with Firaxite.
- **Level 8**: 4 Firaxite resources for Free.
- **Level 11**: Sabotage Operation can be performed by Covert Agents.
- **Level 13**: Emancipation Gate can be constructed for Emancipation Victory Quest.



Supremacy Level 15

1: Explorer Units can build an additional Expedition

3: Roads and Magrails do not cost any Energy to maintain

6: Orbital Coverage on and next to any tile with Firaxite

8: 4 Firaxite resources for free

11: Sabotage Operation can be performed by Covert Agents

13: Emancipation Gate can be constructed for Emancipation Victory Quest

10/28 Affinity XP towards next Level

This is your dominant Affinity. Its influence is felt across your society and military, and other leaders will react to it.

Supremacy isn't about the past or the present; Supremacy looks to the future for salvation. Its goal is to see humanity rise to new heights. To do that, Supremacy Units are made to work together. They're not always going to win in one-on-one battles against their opponents, but that's not their purpose. Supremacy is about combinations of troops. Ranks of melee go in the front, ranged units and artillery behind. With Supremacy, victory is all about the numbers game.

Almost all Supremacy units get bonuses for being near allies, sometimes even per ally. Commando raids aren't normally their thing. Instead, they gather a huge army, push into enemy territory, and blow away everything that stands against them. This is a slower process than Purity attacks, but it's even harder to fight against. Supremacy is thwarted only by persistent, unyielding defense. Multiple units, good chokepoints, and fortified defenders buy people time to stave off defeat.

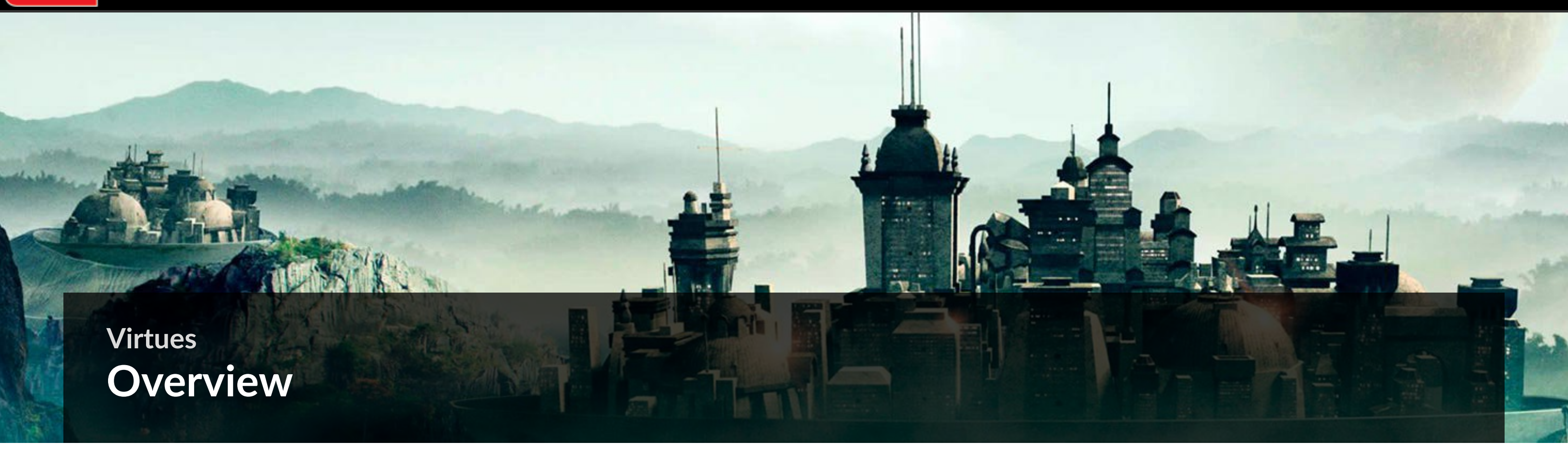
Core Tactics For Supremacy

- Use formations of units to maximize your bonuses.
- Depend on superior range and multiple attacks to make the most out of your Units.
- Win by overwhelming opponents rather than surprising them.

NEURAL UPLOADING (3)
LE COEUR
Marsh
Terrain : Marsh
AMBASSADOR
1/2
14
Ranged Attack 32
CHOOSE PRODUCTION
TURN: 157

Supremacy favors persistent aggression. You can't usually surprise anyone because your military takes longer to put together. Formations are important, and you can't send people in by themselves. Thus, your warfare should be slow and almost civilized. Get your people into the area, declare war, approach each city, and then use your siege units to bring down the defenses. Then, take the city and repeat the process. Multiple fronts and raiding tactics are still viable with Supremacy, but they're not required in the same way. Even fast Supremacy units are made to work with the team rather than head off to unleash their own mini-campaigns.

The Node tile improvement is a great defensive feature, providing Supremacy players with extra healing at home, as well as much-needed Energy. Large armies have large upkeep, so the more Energy income that's available, the better.



Virtues

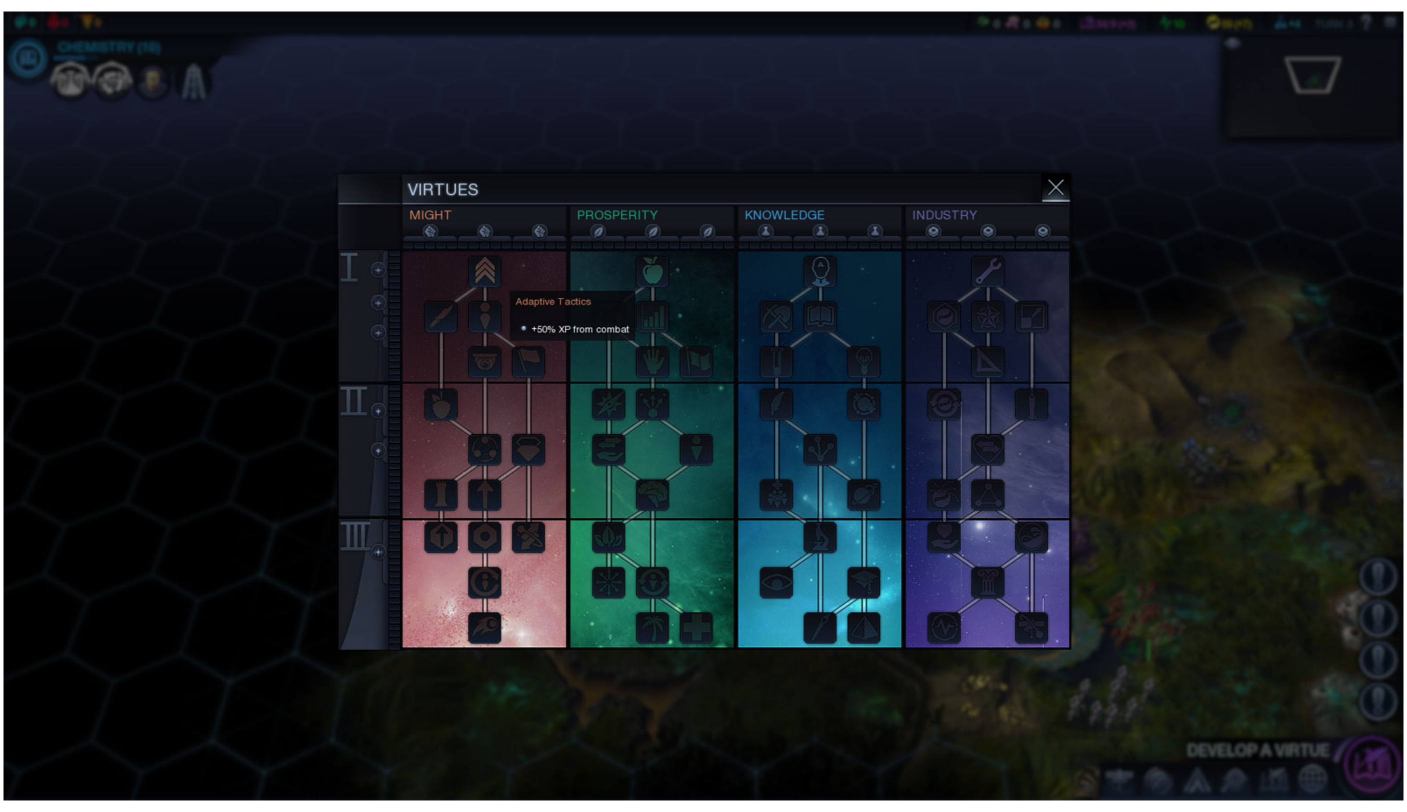
Overview

This chapter discusses the Virtue system. Your nation builds Culture until it reaches certain thresholds; when that happens, you gain a new Virtue and must then build Culture to an even higher value before you're able to grab another one. This section explains how to specialize your colony using the Virtue system and how to get the most possible Virtues without sacrificing other aspects of your nation's development.

Culture is the key to getting Virtues. You can improve your colony's cultural output using domes and terrascapes (tile improvements), culture buildings (e.g., Old Earth relics and feedsite hubs), social development (a production option), or by looking for expedition sites and resource pods.

Larger societies require more Culture to advance to each stage of Virtue. The more Cities you acquire, the higher your Culture threshold becomes. That doesn't always mean that a small civilization is going to get more Virtues. Instead, it means that colonies must emphasize cultural development whether they're massive or tiny. Simply grabbing more Cities doesn't do much to help you advance in this system.

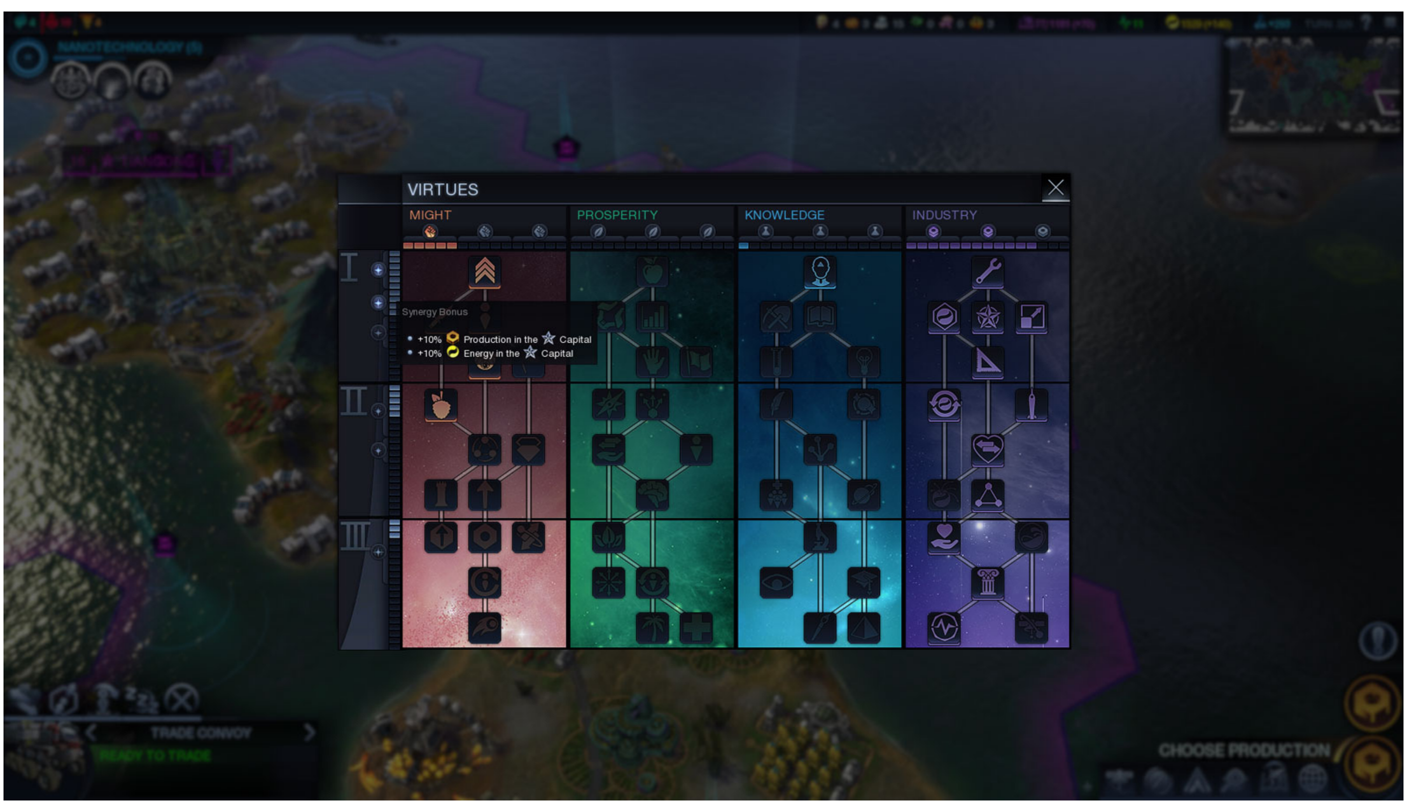
There are four branches of Virtues: Might, Prosperity, Knowledge, and Industry. All four of these are incredibly powerful, as they focus on core elements of gameplay. Though this chapter discusses each of them in detail, the short version is as follows: Might helps you conquer enemies and defend your territory, Prosperity aids in settling and expansion, Knowledge centers on the Culture and research of your nation, and Industry lets you acquire wealth and better infrastructure.



This system lets you devote Virtues from the top down in any category that you want. You must invest Virtues into higher areas before you're able to unlock access to items deeper within each branch. This lets you navigate from minor general bonuses to far more specific (and powerful) bonuses toward the end of each branch.

All branches are divided into three tiers of content. You start up top, eventually work your way to the middle, and then move to the lower tier of the branch. Players can mix and match to their hearts' content. If you want to put points into all four Virtue branches, you're free to do so. There are even rewards for spreading your points around. Heavy investment in a single branch unlocks branch-specific rewards. Distributed investment unlocks broad rewards that are based on investing points in a given tier.

These two types of rewards are called synergy bonuses. There are three synergy bonuses for each branch, and then six bonuses across the various tiers (three for Tier I, two for Tier II, and one for Tier III).



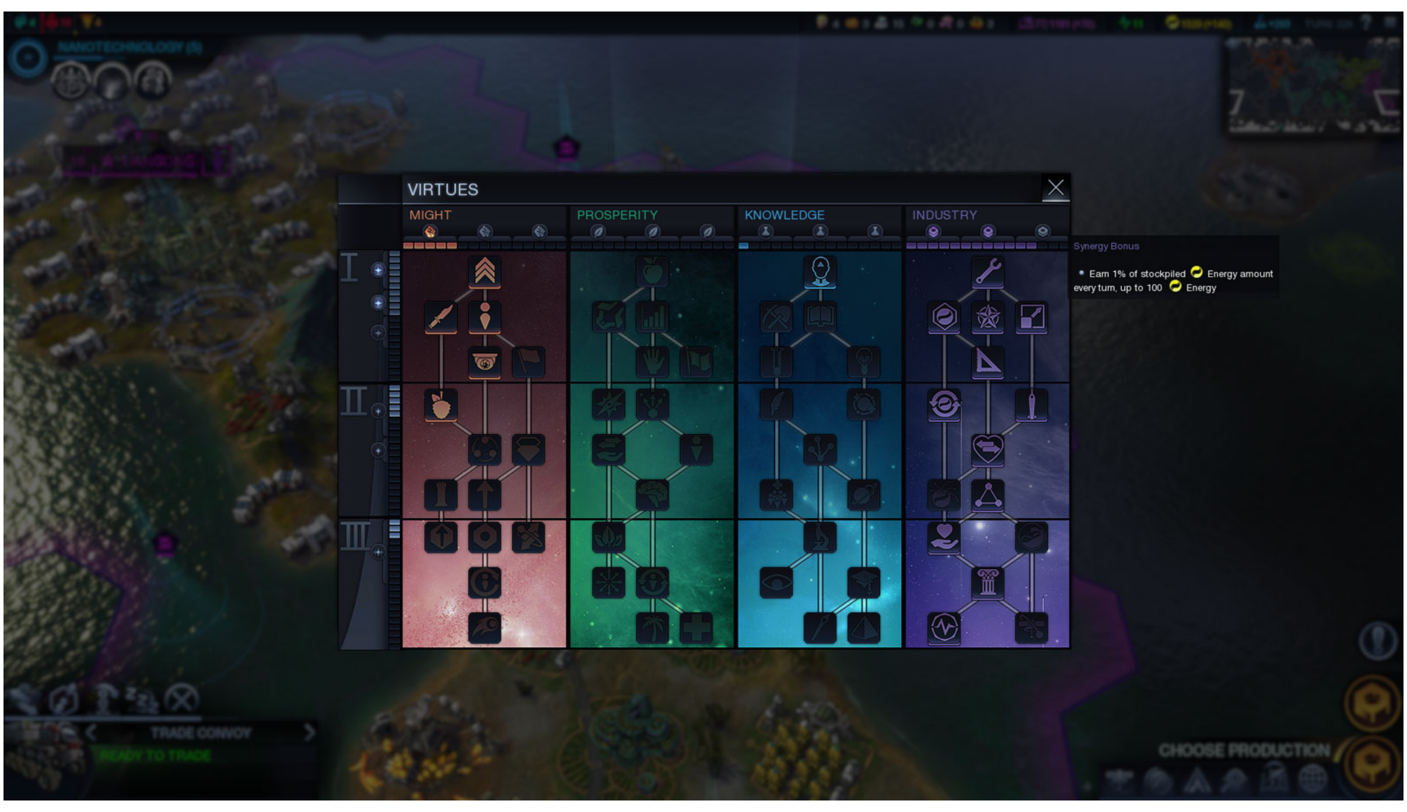
Tier Synergy Bonuses

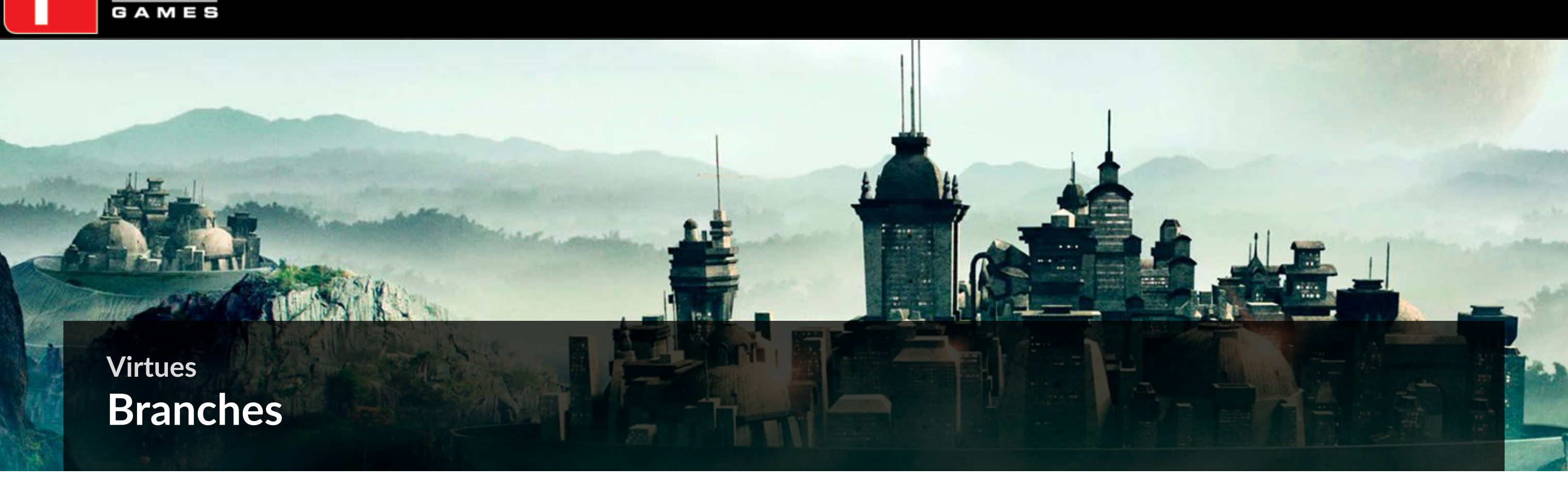
Tier	Requirement	Reward
I	6 Tier I Virtues	Choose 1 Free Virtue
I	10 Tier I Virtues	10% Energy and Production in the Capital
I	15 Tier I Virtues	Choose 1 Free Technology
II	8 Tier II Virtues	Choose 1 Free Virtue and Recruit 1 new Covert Agent
II	12 Tier II Virtues	Choose 1 Free Affinity Level
III	10 Tier III Virtues	+10% Growth, Production, Science, Culture, and Energy in every City

Tier I Bonus

Of all these perks, the first Tier I reward is the most accessible. It usually takes four or five Virtues to get everything that you want out of even a single branch in the first tier. Jumping into another tier to finish off that synergy reward is either free or almost free because the bonus Virtue pays for your investment in a secondary branch.

Synergy bonuses within each branch are given every five Virtues. Thus, you get a reward for putting five Virtues into any single branch, then another reward after 10 Virtues, and then another after 15 selections. These bonuses are specific to the branches in question, and it's about time you learned about them!





Virtues

Branches

MIGHT

Might Synergy Bonuses

Requirement	Reward
5 virtues	+5% Strength and Ranged Strength for all Units
10 virtues	+5% Strength and Ranged Strength for all Units
15 virtues	Choose 1 Free Affinity Level

Might is all about survival and conquest. The bonuses you get assist with fighting aliens and earning experience early on but quickly progress into bonuses that help you take territory and work directly against your enemies.

This is the least diplomatic of the Virtue branches. Its bonuses to combat and spying make it unlikely for a player to keep friends for too long. If you're going down this route, be ready, willing, and able to make enemies. Fight hard, seize cities, and be ready for multiple rivals to band together against you. As long as you prepare for that, it won't be as severe a threat. And if you don't lose against those odds, it's only a matter of time before you take over the world!

You can certainly win a Domination victory without taking any virtues in Might, but this branch can definitely help you on your way. The ability to have your military win unit-for-unit against most enemies is a massive boon.

NANOTECHNOLOGY (9)
TURN: 205
Forest, Grassland, Miasma
Slavic Worker
Tile owned by Slavic Federation
Terrain : Forest, Grassland, Miasma
KHRABROST
COBRA
UNIT IS OUT OF MOVES
NEXT TURN

Tier I

Virtue Name	Bonus Unlocked
Adaptive Tactics	+50% Experience from combat
Liberation Army	After conquering an enemy Outpost, automatically found an Outpost of your own in its place
Military-Industrial Complex	+15% Production toward Military Units
Public Security	+0.25 Health for every Military Unit under your command
Survivalism	+25% Strength and Ranged Strength against alien life forms

Tier II

Virtue Name	Bonus Unlocked
Adaptive Sciences	+20% Affinity earned from researching technologies
Army Engineering Corps	+1 Energy and Production from every Strategic Resource
Martial Meditations	Choose 1 Free Affinity Level
Scavenging	Earn 100% of an alien lifeform's strength as Science after killing it and 40 Science from destroying alien nests
Special Service	+40% Intrigue from Covert Operations

Tier III

Virtue Name	Bonus Unlocked
Brutal Efficiency	+50% quantity from sources of Strategic Resources
Channeled Wrath	+10% Strength and Ranged Strength for all Units
Democratized Quartering	-50% maintenance for Units
Integrated Arms	+10% Production toward a Unit for each Upgrade it has
Joint Operations	+3 Orbital Coverage provided by Stations you trade with

PROSPERITY

Prosperity Synergy Bonuses

Requirement	Reward
5 Virtues	+10% Growth in every City
10 Virtues	+1 Health for every City
15 Virtues	+50% Orbital Coverage radius from Cities

Prosperity is the key to fast growth and massive empires. The bonuses to colony Health are higher here than anywhere else in the virtue system. This leads to unrivaled size and territory for a growing nation. This is not necessary if you are planning on slow or cautious expansion. However, it is necessary if you want to have controlled and sustained growth through peaceful or military means.

Pair Prosperity with Might for aggressive expansion, or pair it with either of the other branches for a more peaceful route. This is ideal if you have a large section of land that isn't contested, so you can settle that territory and develop it without having to carve through anyone else.

GENETICS (6)
TURN: 22
Grassland
SANTO ADRIÃO
CIDADELA
CHOOSE PRODUCTION

Tier I

Virtue Name	Bonus Unlocked
Colony Initiative	Gain a free Colonist Unit
Frugality	+10% Food retained after a City grows
Helping Hands	+15% build speed for Tile Improvements
Homesteading	+30% speed toward Outpost growth
Workforce Initiative	Gain a free Worker Unit

Tier II

Virtue Name	Bonus Unlocked
Gift Economy	+3 Energy from your land- and sea-based Trade Routes to foreign Cities
Mind Over Matter	+7 Health
Pathfinders	Explorer Units can build 3 additional Expeditions
Pioneer Spirit	-25% Culture needed for border expansion
Settler Clans	+2 Population for newly founded Cities

Tier III

Virtue Name	Bonus Unlocked
Ecoscaping	+1 Food, Production, and Culture from every Terrascape
Eudaimonia	25% less negative Health
Hands Never Idle	+2 Energy from any Population acting as a Specialist
Joy from Variety	+1 Health for each type of Basic Resource that is improved
Nature's Bounty	+1 Production from every Basic Resource

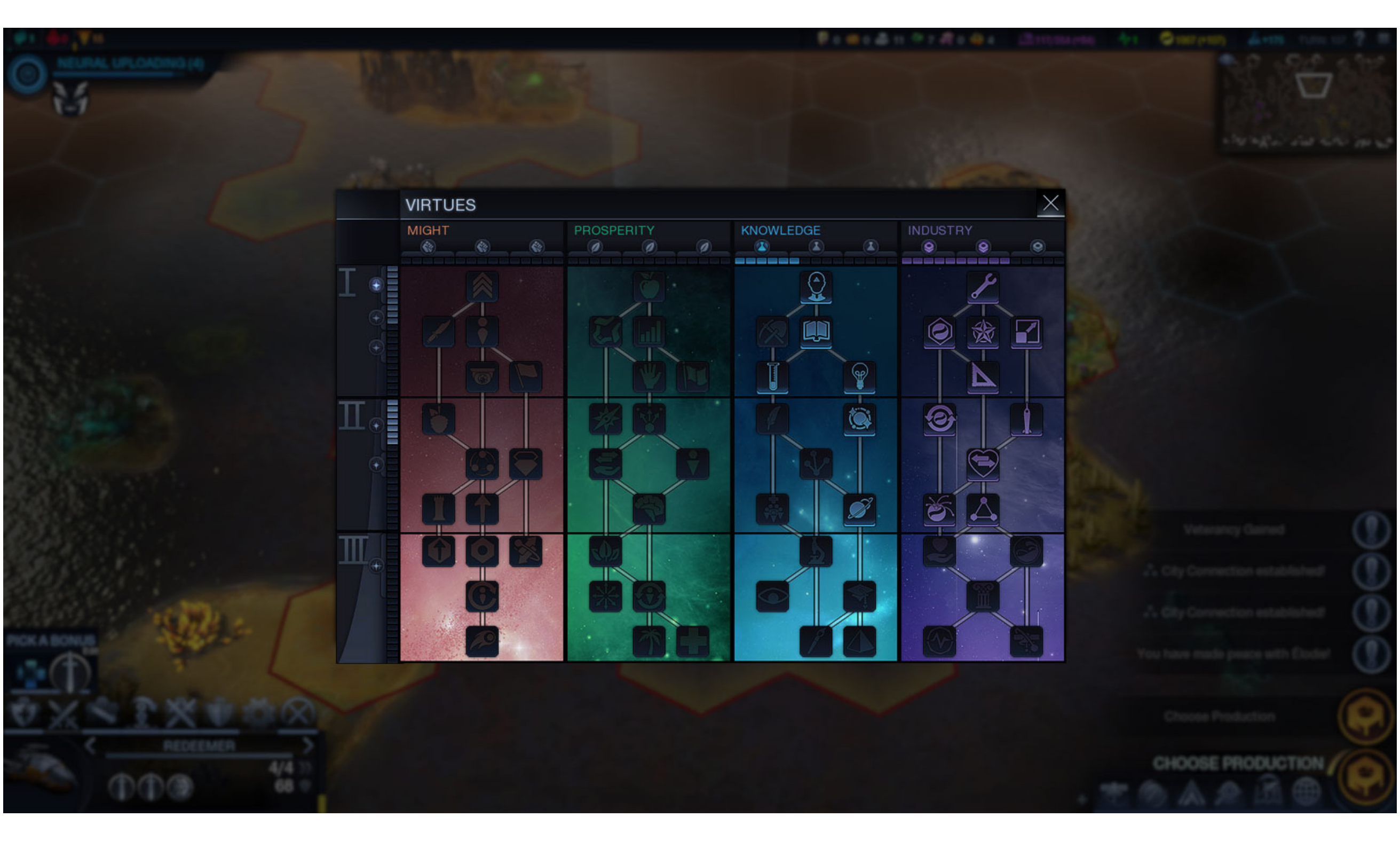
KNOWLEDGE

Knowledge Synergy Bonuses

Requirement	Reward
5 Virtues	+10% Culture in every City
10 Virtues	+10% Science in every City
15 Virtues	Choose 1 Free Technology

Knowledge is where you go to raise Culture and Science to the max. This branch, when paired with Prosperity, allows for large colonies to advance very rapidly because the Culture and Science costs of having extra cities are reduced dramatically.

Knowledge and Industry are amazing for infrastructure in small nations. Knowledge and Might are good together for conquerors who plan on using large advanced military forces to do their work. They won't have as much money or infrastructure, but they can expand through conquest and let other colonies do half of the work for them!


VIRTUES
MIGHT
PROSPERITY
KNOWLEDGE
INDUSTRY
I
II
III
CHOOSE PRODUCTION

Tier I

Virtue Name	Bonus Unlocked
Creative Class	Earn extra Culture equal to 30% of net positive Health
Field Research	Earn 20 Science from finishing Expeditions
Foresight	+10% Science when Healthy
Laboratory Apprenticeship	Each City tile generates +0.25 Science for every Population
Social Mores	Each City tile generates +0.25 Culture for every Population

Tier II

Virtue Name	Bonus Unlocked
Applied Aesthetics	Earn extra Energy equal to 30% of the Culture you generate
Cohesive Values	-10% Culture needed for new Virtues
Community Medicine	+1 Health for every 6 Population in a City
Memeweb	-40% Culture penalty from the number of Cities for new Virtues
Networked Datalinks	-40% Science penalty from the number of Cities for new technologies

Tier III

Virtue Name	Bonus Unlocked
Information Warfare	Recruit 1 new Covert Agent
Learning Centers	+2 Science from every Academy Improvement
Metaresearch Methods	Leaf technologies cost 10% less Science
Monomyth	+7 Culture for every Great Wonder
Technoartisans	Earn extra Science equal to 15% of the Culture you generate

INDUSTRY

Industry Synergy Bonuses

Requirement	Reward
5 Virtues	+10% Energy in every City
10 Virtues	+10% Production in every City
15 Virtues	Earn 1% of stockpiled Energy amount every turn, up to 100 Energy

Industry is where you get your energy and production power. Buildings come up quickly, and you have enough free "cash" to buy whatever you need whenever there is a shortfall. You can whip up a fast military when combined with Might, expand and have amazing cities with Prosperity, or stay smaller but powerful with Knowledge.

If you don't have much land, Industry can be a wonderful way to salvage your game. It's easier to get your buildings going, and that leaves more free time for warfare, trade routes, or whatever else you want to get done.

If you're hoping for a Contact victory, this is an amazing branch to master. The increased Production, wonder bonuses, and strong economy all work in sync with the objectives for Contact.

CITIZENS
QUYEN
RESEARCH DEVELOPMENT
Citizen Management
FOCUS: None
Production Management
CHANGE PRODUCTION
PURCHASE
CANCEL
UNITS
COLONIST 2 TURNS
TRADE CONVOY 1 TURN
WORKER 1 TURN
CENTURION 3 TURNS
DEVASTATOR 4 TURNS
DRAGOON 3 TURNS
EXPLORER 1 TURN
TRUE AEGIS 3 TURNS
TRUE BATTLESUIT 3 TURNS
WARDEN 3 TURNS
MIASMIC REPULSOR 1 TURN
PREDATOR 4 TURNS
SOLAR COLLECTOR 1 TURN
BUILDINGS
GAIAN WELL 2 TURNS
LEV PLANT 3 TURNS
OTHER
INDUSTRIAL DEVELOPME... ONGOING
RESEARCH DEVELOPMEN... ONGOING
RETURN TO MAP
City Buildings and Wonders
SHOW
ACTIVATE
Production Queue

Tier I

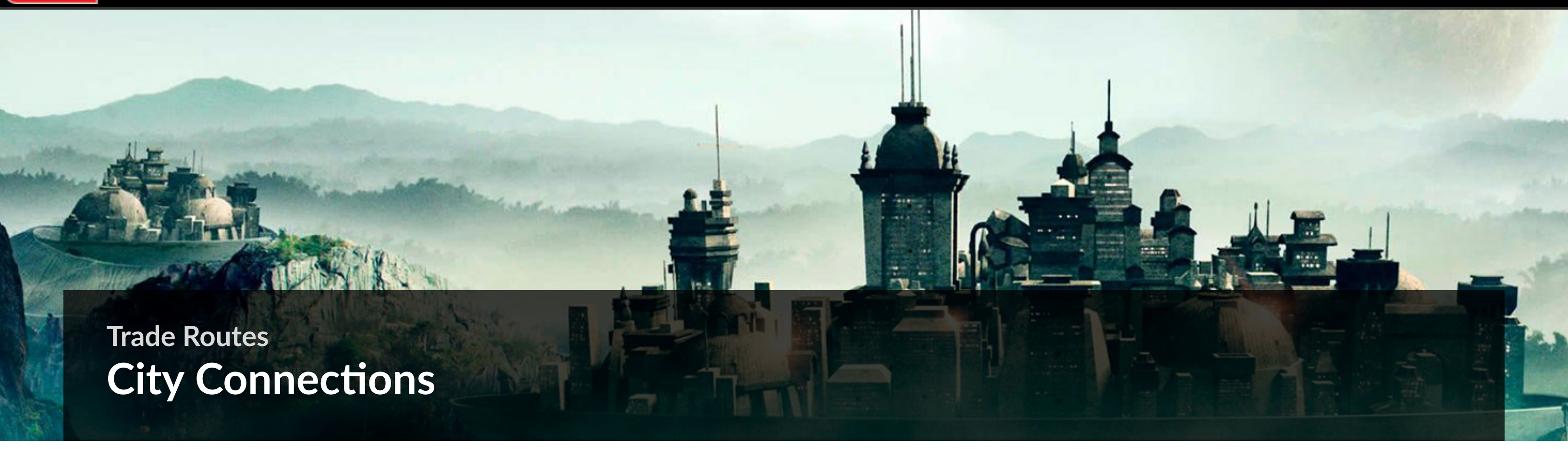
Virtue Name	Bonus Unlocked
Central Planning	+5 Energy in the Capital
Commoditization	+1 Energy from every Basic Resource
Labor Logistics	+10% Production toward Buildings
Scalable Infrastructure	+15% Production toward Wonders
Standardized Architecture	+25% Production toward Buildings which have already been built in the Capital

Tier II

Virtue Name	Bonus Unlocked
Alternative Markets	Trade Routes with Stations grant +6 Energy per Station tier
Entrepreneurial Spaceflight	+25% Production toward Orbital Units
Interdependence Network	+25% more yields from your Trade Routes to your own Cities
Investment	Earn 1% of stockpiled Energy amount every turn, up to 100 Energy
Profiteering	+0.5 Health for every Trade Unit under your command

Tier III

Virtue Name	Bonus Unlocked
Civic Duty	Each City tile generates +0.5 Production for every Population
Liquidity	-20% Energy cost to purchase Units
Magnasanti	Each City generates +0.2 Health for every Building
Social Investment	+2 Production from every Manufactory Improvement
Superior Engineering	Orbital Units stay in orbit 50% longer before de-orbiting



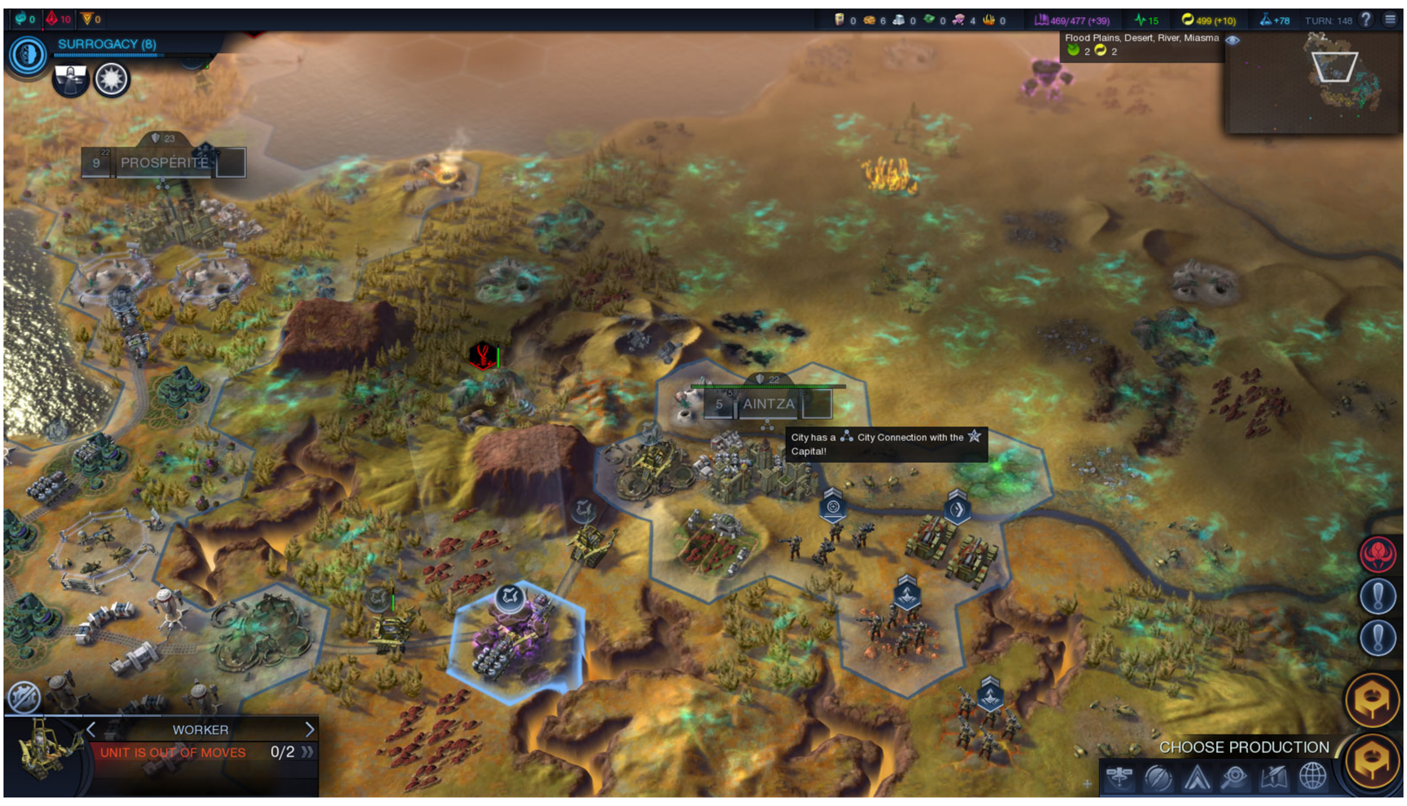
Trading And Maintaining Trade Routes

Trade routes are the lifeblood of your civilization, generating Energy that can be used to pay for anything you want. Without them, it's much harder to maintain a profitable economy, but that's not the only thing that they provide. Production, Food, Science, and even Culture are aided by the clever use of trade routes. You can do almost anything with these systems, and it won't cost much to set them up once you know what you're doing.

This chapter explains how to get the most out of trade routes, both internally and internationally.

CITY CONNECTIONS

City connections aren't a requirement for trade routes, but they sure help your colony's economy. A City is considered to be connected to your Capital as long as it has a road or magrail that goes all the way to the Capital (passing through other Cities that you control is fine). Cities are also connected if they have access to the same body of water as your Capital and have a clear route scouted between their location and your Capital City.



City has a City Connection with the Capital!

Long Road to Nowhere

Be very careful about dedicating yourself to roads that are too long to be useful. A stretch of road that goes more than seven or so tiles without hitting a city might be on the border between useful and not useful. Anything past the 10-tile line is really risky. You're devoting major time to create that road and paying for its upkeep during construction, but that's not the sole problem. You should look at your city and ask, "Why am I building this so far away from home?"

It's worth going an extra tile or two to found a city that is going to be in a great area: near a river, surrounded by good resources, etc. But going way too far from the edge of your territory is a good way to lose that city in your next war.

City connections earn Energy for your colony. This bonus Energy is a rather substantial amount once you connect several Cities. As your Cities grow, they provide more and more Energy per turn for being connected.

Though roads and magrails cost money to maintain, you usually make a profit off of your connections. Don't found Cities that are too far away from your colony, and you won't have to worry much about upkeep. Getting up to Supremacy Level 3 negates upkeep for roads and magrails, so that's another great way to improve the efficiency of your economy.

SURROGACY (5)
Plains, Hill, Miasma
TURN: 160
CITY CAN ATTACK

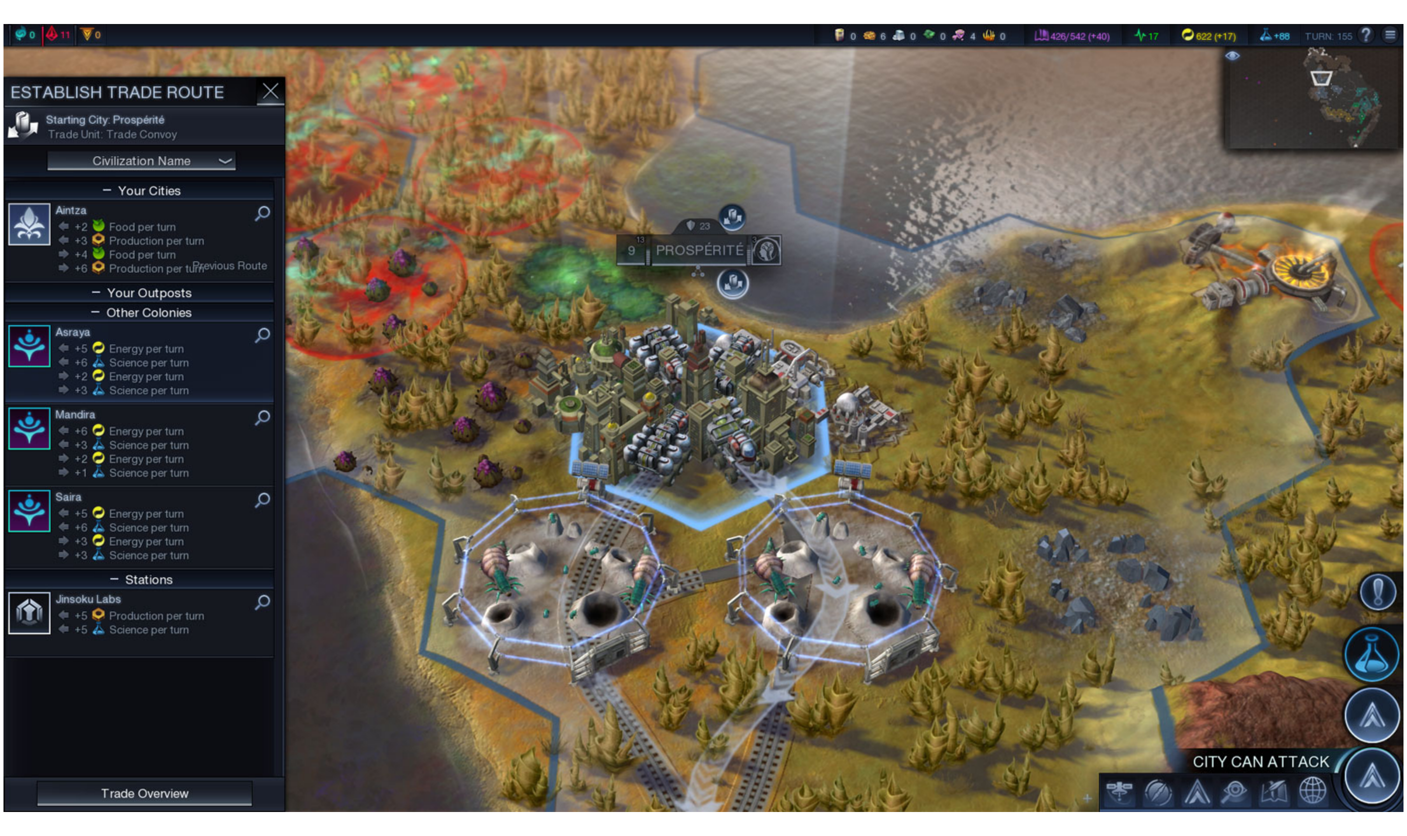
Even if you can't do much to make your road system cheap, it's worth having one! Movement between your Capital and allied Cities is vital for the defense of your colonies. Taking 15 turns to respond to a buildup of forces along a border is usually disastrous. You want to be able to shuffle units around at will so that each City doesn't have to stand alone. Redistribution of forces enables you to defend your colony with a fraction of the troops that you'd otherwise need to hold off a foe who is willing to scout well and come at you from multiple angles.

Trade Routes

Trade Routes

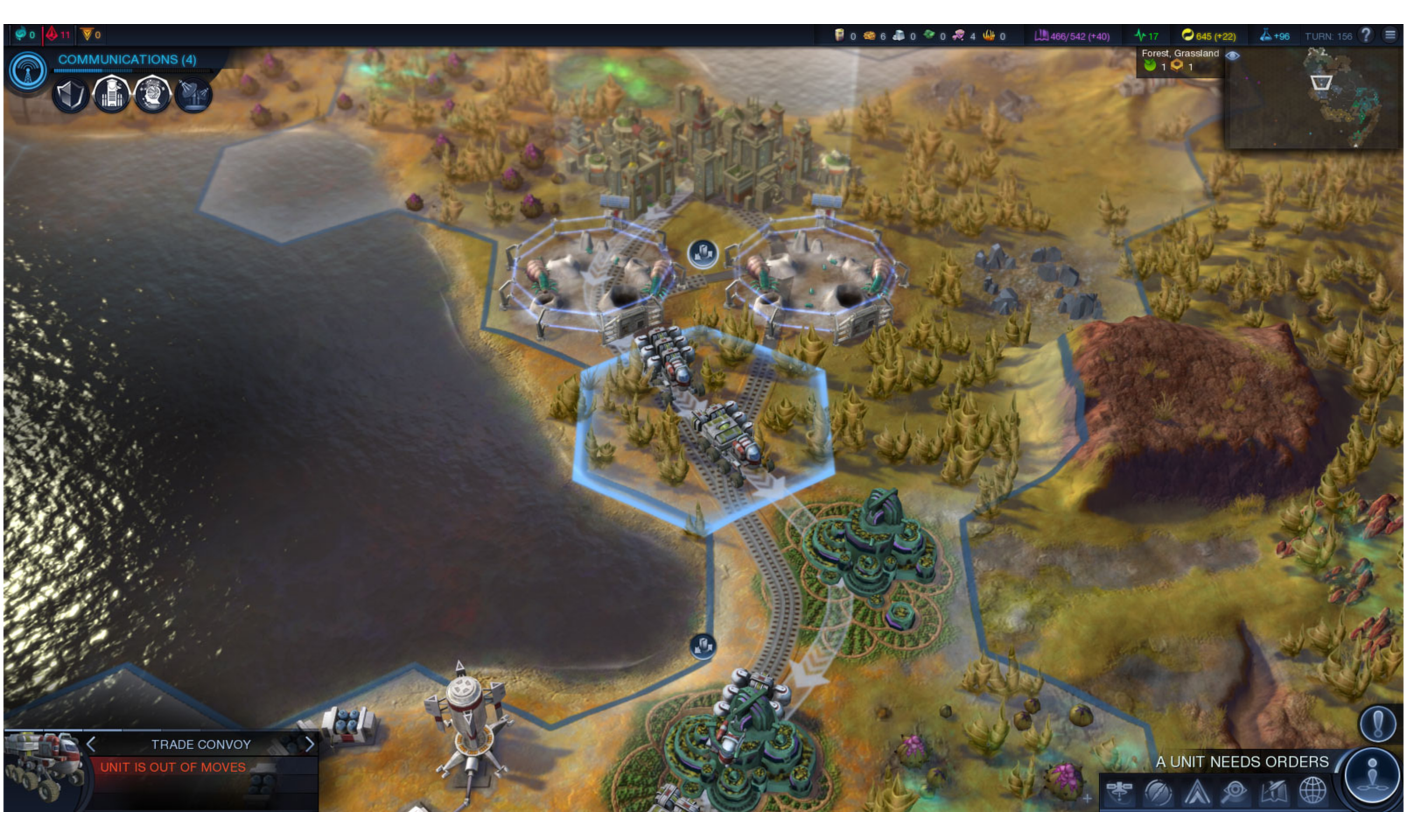
Actual trade routes are another matter altogether. These routes are formed when you connect two Cities, or a City and a Station, using a trade convoy or a trade vessel. First, you have to construct a Trade Depot inside a City. This allows the production of trade units, and enables the City to support up to two trade routes. Then produce the unit in question. Trade convoys go across land routes, and trade vessels use aquatic routes between their destinations.

Once you have the trade unit, select that unit, and use the Establish Trade Route command. You are given a list of all possible routes that are available to that unit. Places that you haven't discovered (or don't have a clear route to) won't be in that list. You need a clear route, without Miasma, to make a trade route. The path might be rather strange, but as long as there is a clear line, the route can be used.


ESTABLISH TRADE ROUTE
Starting City: Prospérité
Trade Unit: Trade Convoy
Civilization Name
Your Cities
Aintza
Your Outposts
Other Colonies
Asraya
Mandira
Saira
Stations
Jinsoku Labs
Trade Overview
PROSPÉRITÉ
CITY CAN ATTACK

Highlight the target of your trade route on the Establish Trade Route list to see the path that your unit is going to take. If that path goes through enemy territory, you might want to choose another trade route, even one that's less profitable. Your opponents are happy to seize your trade units because plundering them provides Energy and because breaking your trade routes is a way to choke your economy.

Once you establish a route, your Units happily go back and forth between their city of origin and the destination. They're vulnerable to enemy attack or aliens, but you can use Ultrasonic Fences to save them from the latter. It's best that you always choose the Quest reward to let Ultrasonic Fences protect trade units. This is such a major boon to your colony that it's almost always the better option.


COMMUNICATIONS (4)
TRADE CONVOY
UNIT IS OUT OF MOVES
A UNIT NEEDS ORDERS

Trade routes vary in quality. Look at the differences between all of the routes before making any choices; once you dedicate to a trade route, your unit won't be available for starting a new path for some time, depending on game speed. War or the loss of a city can disrupt this, but usually, you must wait the entire duration of the route before reassigning your trade units.

TYPES OF TRADE ROUTES

There are three types of trade routes that you can establish: international, internal, and Station routes. All of these have slightly different mechanics, and they're used at different stages of the game.

International Trade Routes

- Provide Energy for your economy
- Add Science to help your Research
- Improve relations between two colonies

International routes connect a City in your colony to another player/AI's City. These provide Energy and Science to both players. The connecting player often gets a fair amount more yield than the receiving player, but both people always benefit from the deal.

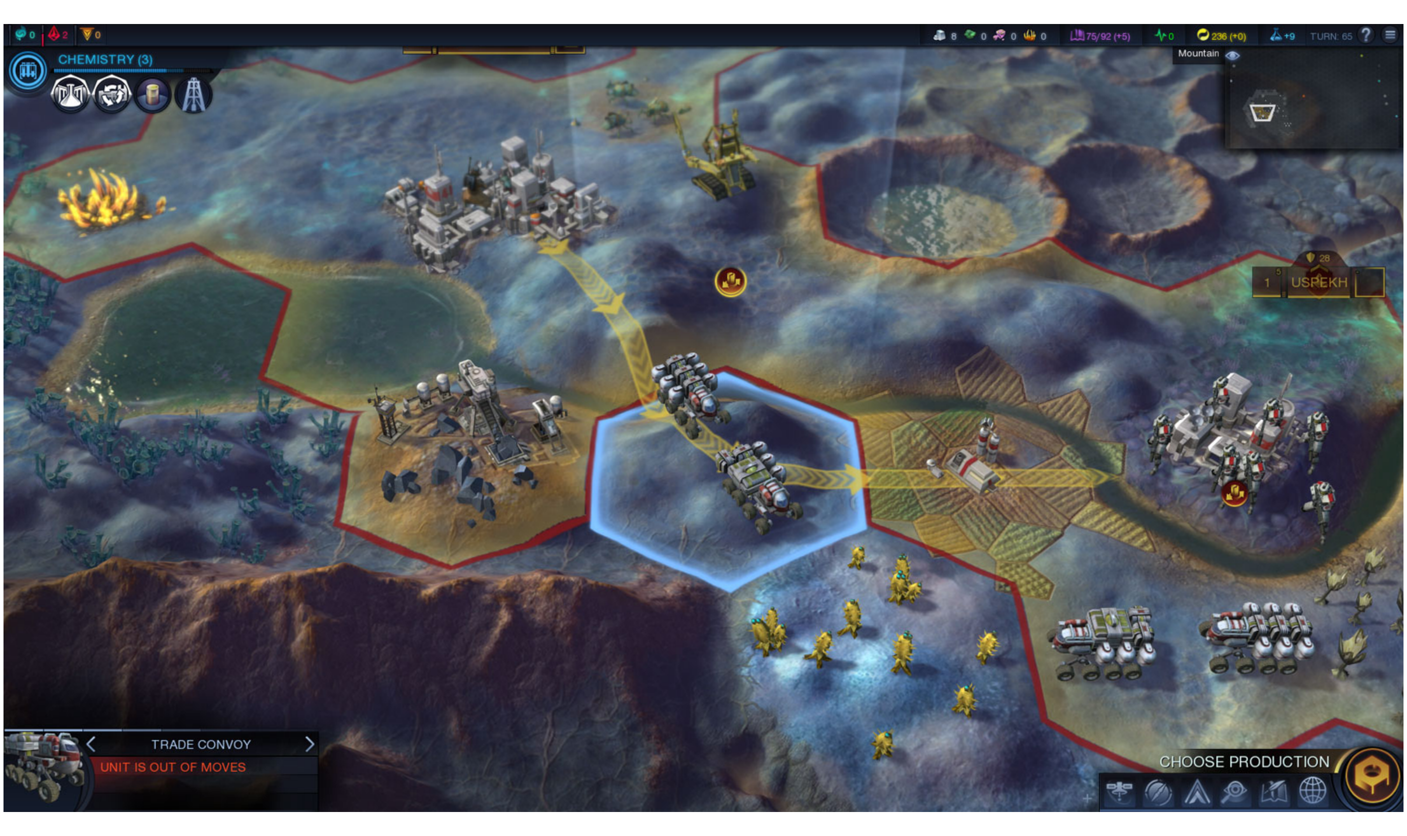
International routes improve relations between the two sponsors. They won't guarantee peace, but they go a long way toward protecting friendships and alliances. Even when things are at their worst, you can use these routes to slow down or stave off declining relationships long enough to prepare yourself for war that is likely to come anyway (such as when two large colonies share a border with each other).

ÉLODIE OF FRANCO-IBERIA
NEUTRAL
Back

I am delighted by the robust exchange of goods and wealth between our settlements. Let us protect and expand this lucrative arrangement.

Internal Trade Routes

- Add Production to both Cities inside your colony
- Add Food to both Cities inside your colony
- Develop Outposts at an amazing rate

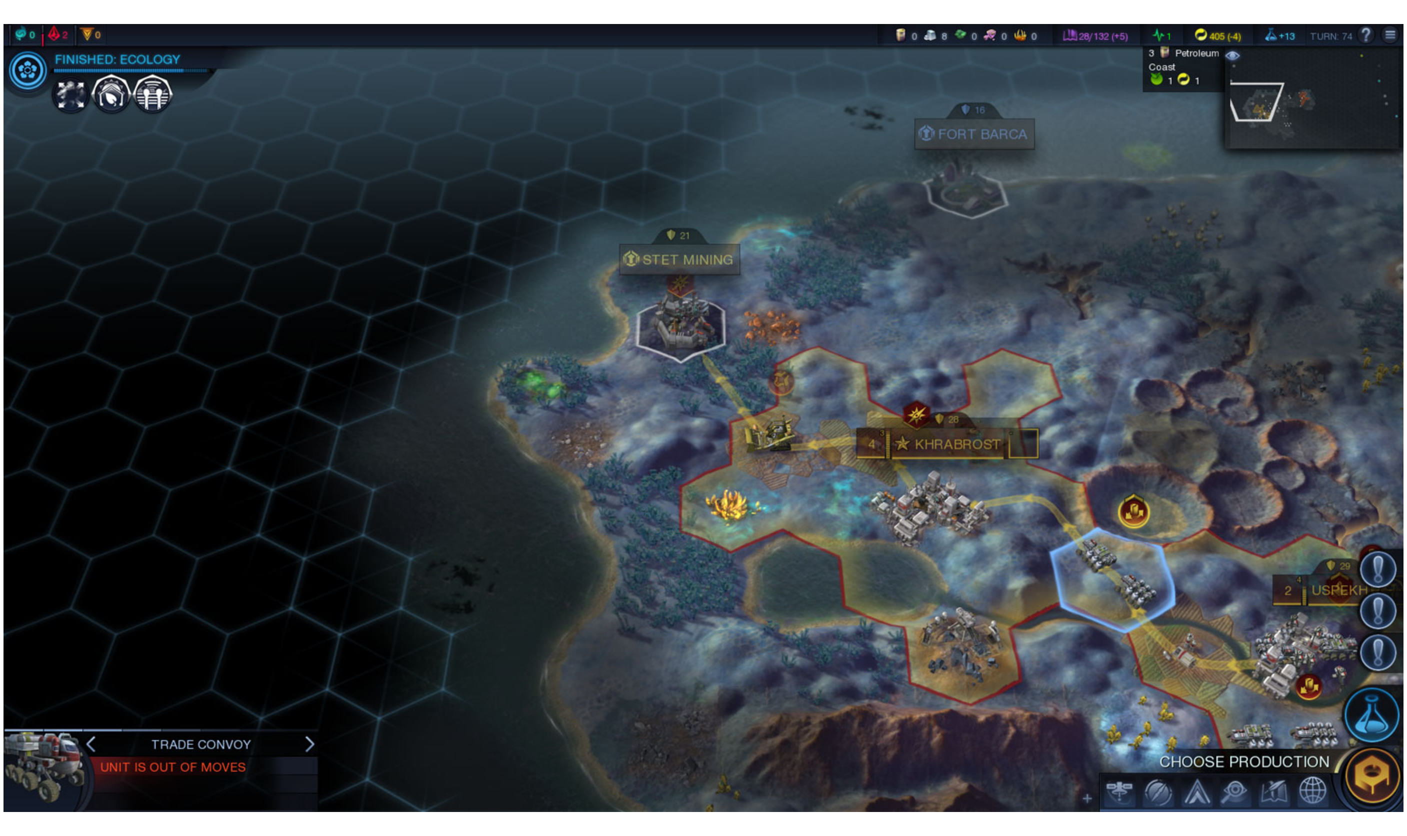

CHEMISTRY (3)
USPEKH
TRADE CONVOY
UNIT IS OUT OF MOVES
CHOOSE PRODUCTION

Internal routes aren't going to help you diplomatically, but they're one of the best ways to get new cities off the ground. Use internal trade routes to a new City to give that location more Food and Production. You gain citizens faster and construct buildings very quickly compared with most starting Cities. Send multiple routes to that City to get that bonus as high as possible, and have routes leave from that City as well. This increases to the point where new Cities can gain population almost every turn and finish their buildings as if they were older, established Cities.

Internal routes can also be sent to a developing Outpost, before it even becomes a City. Each trade route used this way will increase the growth speed of the Outpost by 50%, causing it to acquire tiles faster until it finishes developing. As soon as it turns into a City, those trade units will be immediately available for reassignment back at their origin Cities. Send them to the fledgling City to boost its Food and Production!

Station Trade Routes

- Add a variety of possible yields, depending on the type of Station you're connecting to
- Yields improve over time if you continue trading with the same Stations


FINISHED: ECOLOGY
FORT BARCA
STET MINING
KHRABROST
USPEKH
TRADE CONVOY
UNIT IS OUT OF MOVES
CHOOSE PRODUCTION

Stations have the weirdest trade routes, as they don't offer a set type of yield. Instead, they might provide Culture, Science, Food, Energy, or Production. Take a look at all of the Stations that your people have discovered, and see which will be most beneficial to you. It is important to note that unlike international routes, trading with Stations provides the yield only to your own City, not to both the connecting City and the receiving Station.

The initial bonuses for each station seem fairly weak, compared to some of the international routes. This is because they need some investment to get to their peak. All Stations offer better deals to your people if you trade with them extensively over time. Send trade units to connect with them again and again to see their bonuses improve.

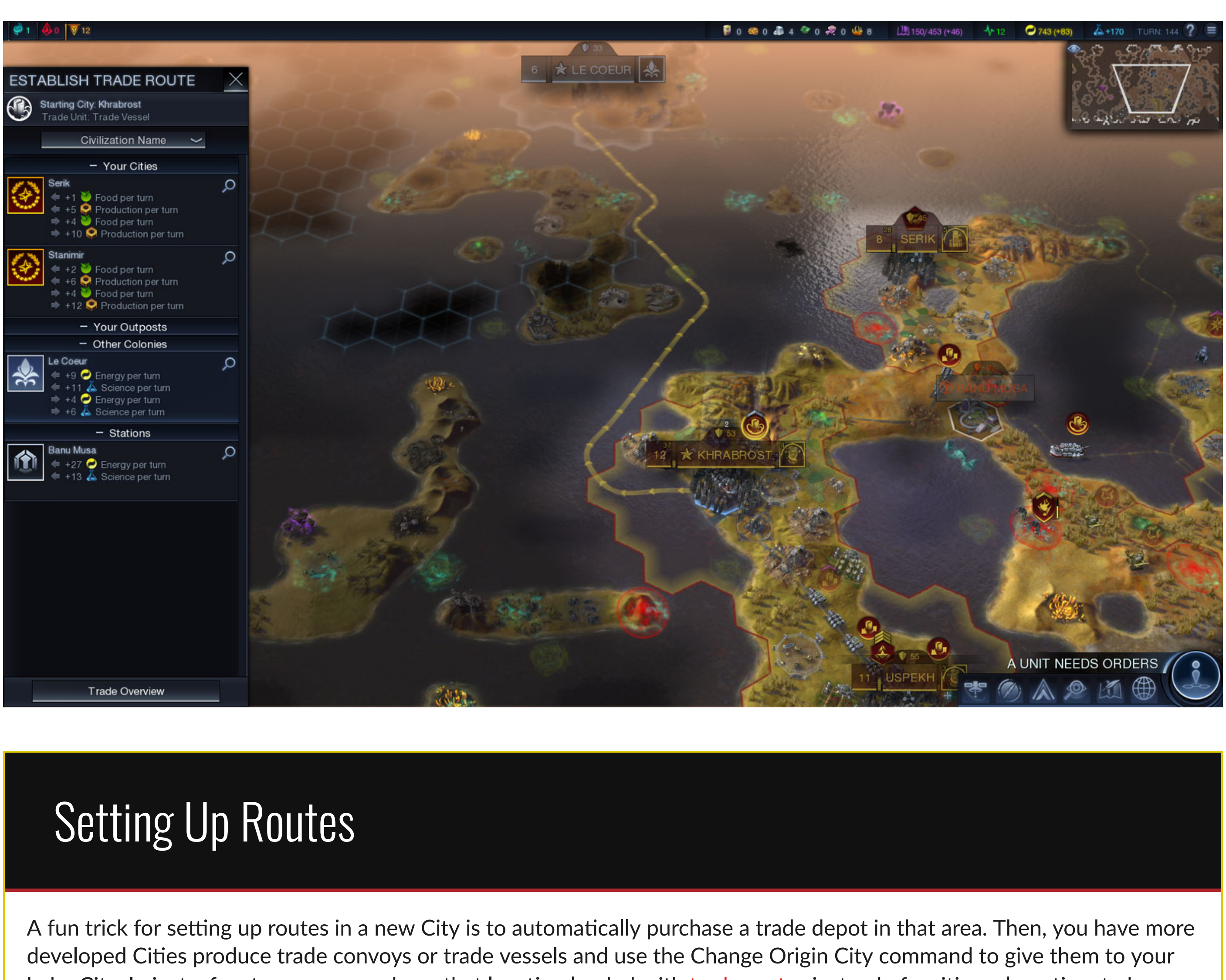
This guide devotes an entire chapter to Stations because they're a fairly complex entity in the game. Read more about them to find out how to exploit these independent entities.

SETTING UP AND IMPROVING TRADE NETWORKS

There aren't many ways to get more trade routes out of each City. Each of your Cities starts with zero trade routes. They can receive routes from other Cities, but they can't launch any convoys or vessels of their own. As mentioned before, construct a Trade Depot as soon as you can to add two potential trade routes to that City.

Autoplants, once they get their Quest reward, can be tooled to provide a bonus route to their Cities. This gets your numbers up a bit higher. With an extra trade route, you can reap even more profit.

Another way to get more out of your trade routes is to establish many of them over water. Aquatic routes have a 50% higher yield than terrestrial ones. You won't usually have as many targets to trade with, but the few you have are going to get you tons of Energy, Science, Food, or Production, depending on the type of route in question. The downside is that aquatic routes are more dangerous; it's harder to keep your trade vessels safe from alien attacks.

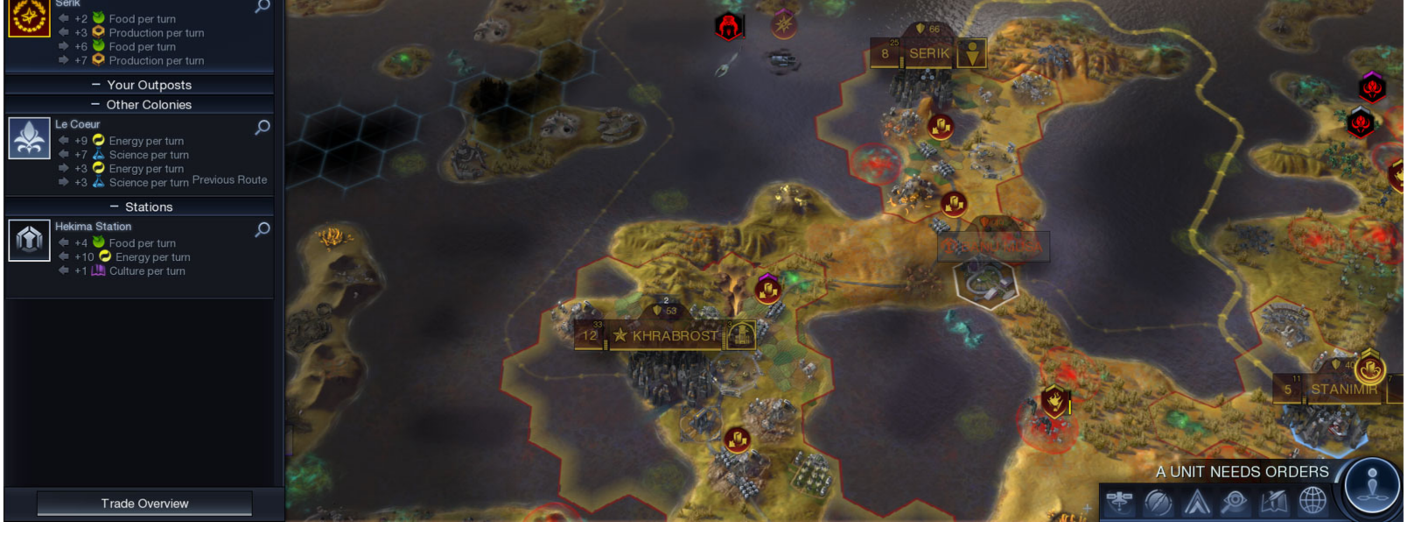

ESTABLISH TRADE ROUTE
Starting City: Khrabrost
Trade Unit: Trade Vessel
Civilization Name
Your Cities
Serik
Stanimir
Your Outposts
Other Colonies
Le Coeur
Stations
Banu Musa
Trade Overview
LE COEUR
SERIK
KHRABROST
USPEKH
A UNIT NEEDS ORDERS

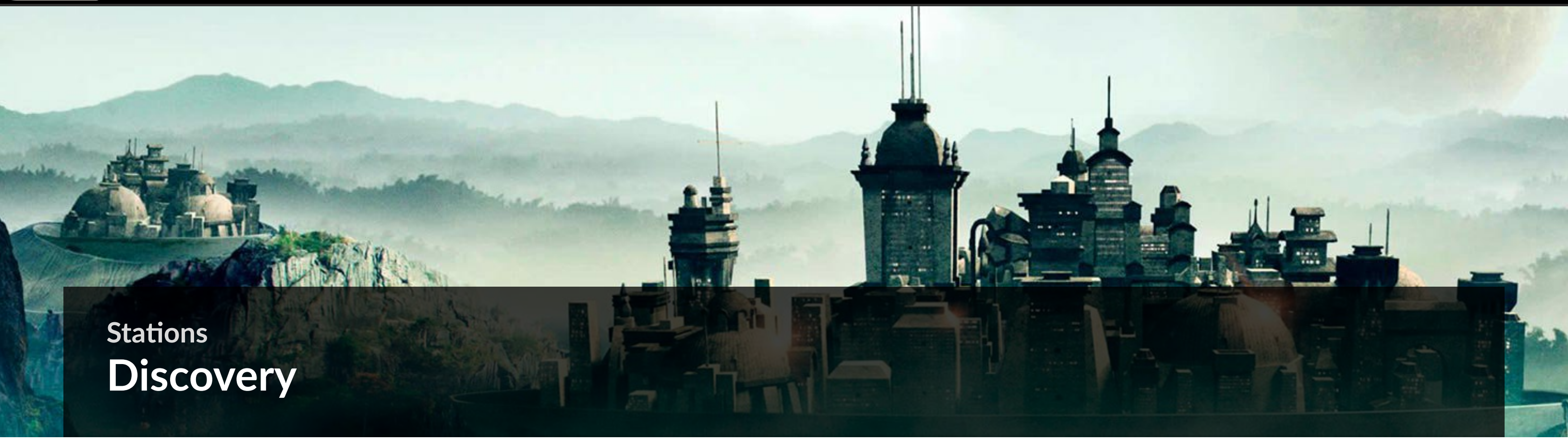
Setting Up Routes

A fun trick for setting up routes in a new City is to automatically purchase a trade depot in that area. Then, you have more developed Cities produce trade convoys or trade vessels and use the Change Origin City command to give them to your baby City. In just a few turns, you can have that location loaded with trade routes instead of waiting a long time to have them produce their own trade units. This is also much cheaper than using a purchase to get all of a new City's trade units.

For a quick list of your ideal trade targets, consider this:

- International routes get the most out of trade between massive Cities, like your rivals' Capitals.
- Internal trade routes give the best bonuses to your young Cities, which get an insanely high bonus to their Growth and Production (when you look at the percentage of change).
- Station trade routes are the best when you need something specific, like bonus Science or Culture, or if you don't want to aid your neighbors by trading with them.


ESTABLISH TRADE ROUTE
Starting City: Stanimir
Trade Unit: Trade Vessel
Civilization Name
Your Cities
Khrabrost
Serik
Your Outposts
Other Colonies
Le Coeur
Previous Route
Stations
Hekima Station
Trade Overview
LE COEUR
SERIK
KHRABROST
STANIMIR
A UNIT NEEDS ORDERS



Stations

Discovery

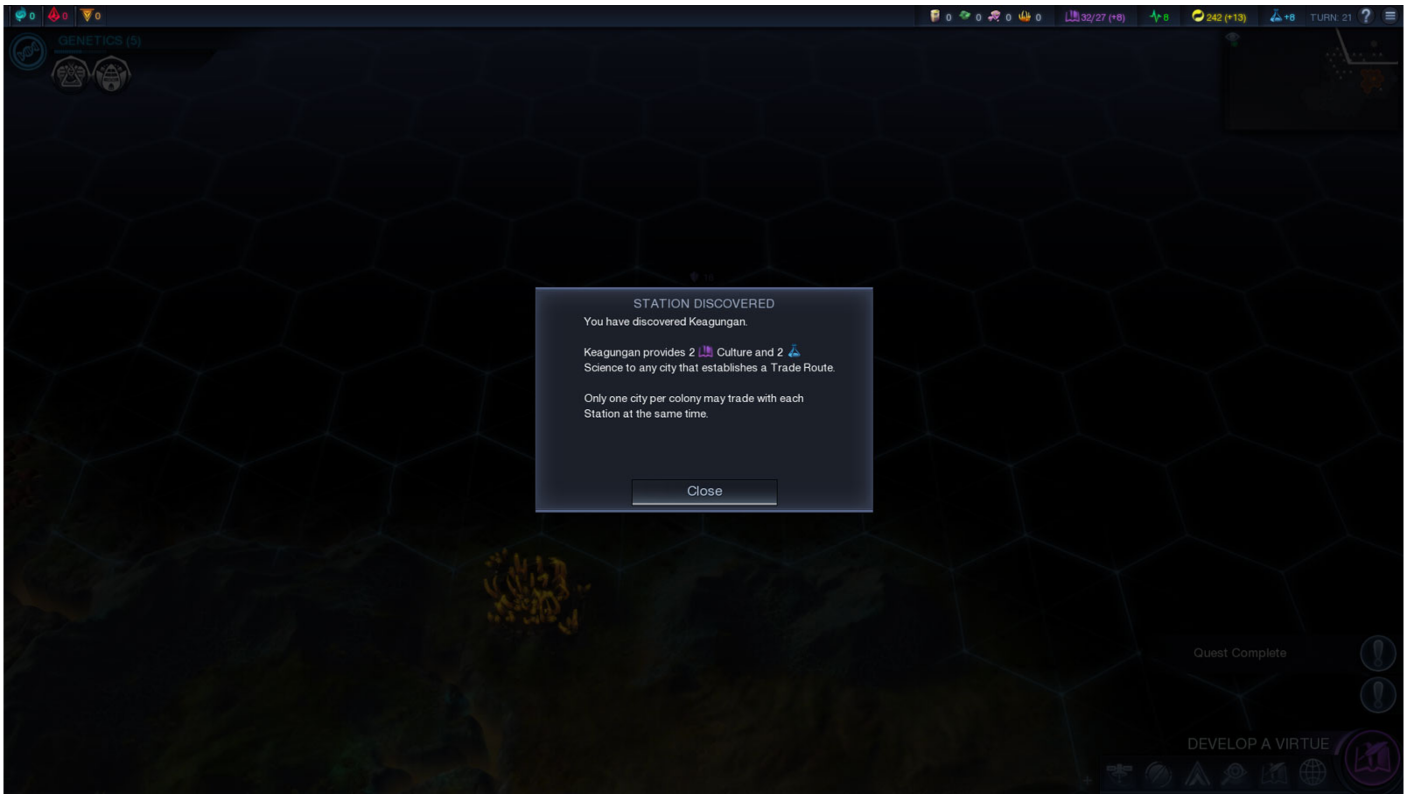
The Purpose Of Stations

Stations are the neutral powers of the world in this game; mining outposts, laboratories, and other organizations that are independent from the colonies. They're viable partners for trade, and you potentially get some great yield bonuses from dealing with them. However, they do not own territory beyond their one tile and cannot produce Units or anything else a City is normally capable of. They also do not participate in diplomacy. This chapter covers the best use of Stations and explains what you can do to maximize their perks while also denying them to other players.

DISCOVERY

Stations appear on the map over time. Some start near the very beginning of the game, while others randomly plop down later on. There are many types of Stations, and each has its own bonuses. A Station might trade Production, Food, Culture, Science, or Energy. Many Stations even trade a mix of these yields to anyone who sends convoys their way.

Once a Station appears, you get a notification about its name and the yield it provides, and the map zooms to its location. To make it available for trade, have one of your explorers or military units wander over to that area so that you have a clear explored path to that Station. If the path is clear of Miasma, the Station should appear on your list of potential routes when using the Establish Trade Route command on a trade unit.



STATION DISCOVERED

You have discovered Keagungan.

Keagungan provides 2 Culture and 2 Science to any city that establishes a Trade Route.

Only one city per colony may trade with each Station at the same time.

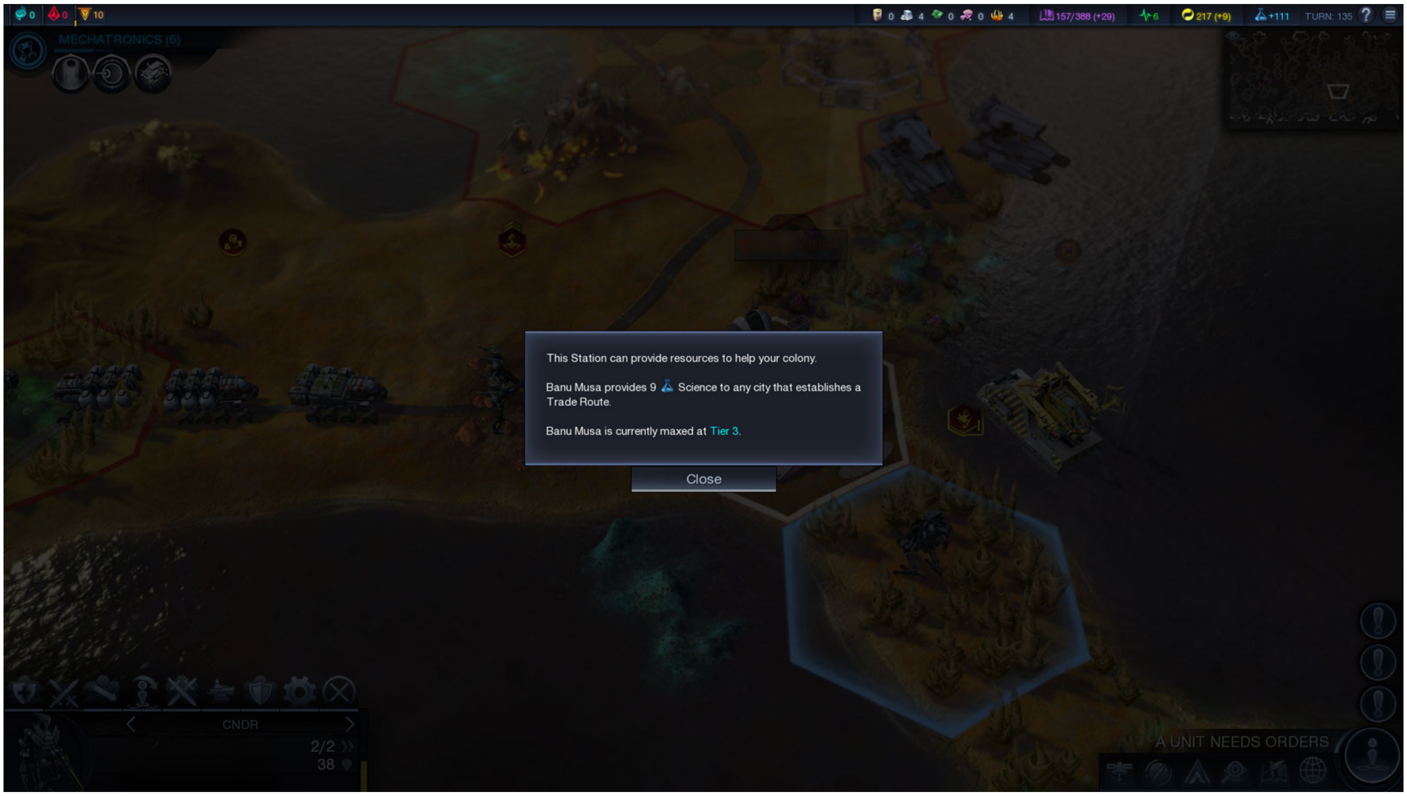
Now you're ready to go, so start trading!

Stations

Trade and Improvement

The first trade convoy that you send to a Station isn't going to get you the best bonuses. You often do better by trading with a rival or sending convoys internally to raise the Food and Production of your own Cities. But this is a deceptive thing. Stations only get better over time if you invest in them. To do this, trade with them, and watch the bonuses improve as the Station thrives.

Every Station has three tiers of bonuses. Each time anyone completes a route with a particular Station, it will rise to a higher tier and start giving you more yield.

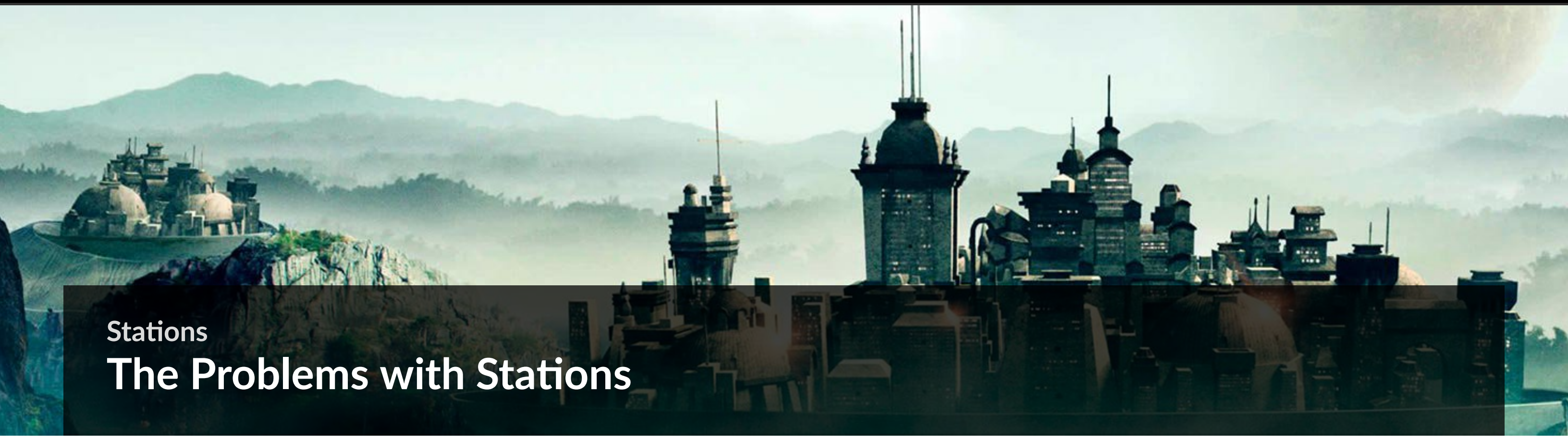


This Station can provide resources to help your colony.

Banu Musa provides 9 Science to any city that establishes a Trade Route.

Banu Musa is currently maxed at Tier 3.

If there are yields that you badly need, it's certainly worth your time to send convoys to a Station that has them. By the time they fully develop, you're going to get way more resources than you normally would. This is especially true with Culture, which you cannot trade for with any other City.

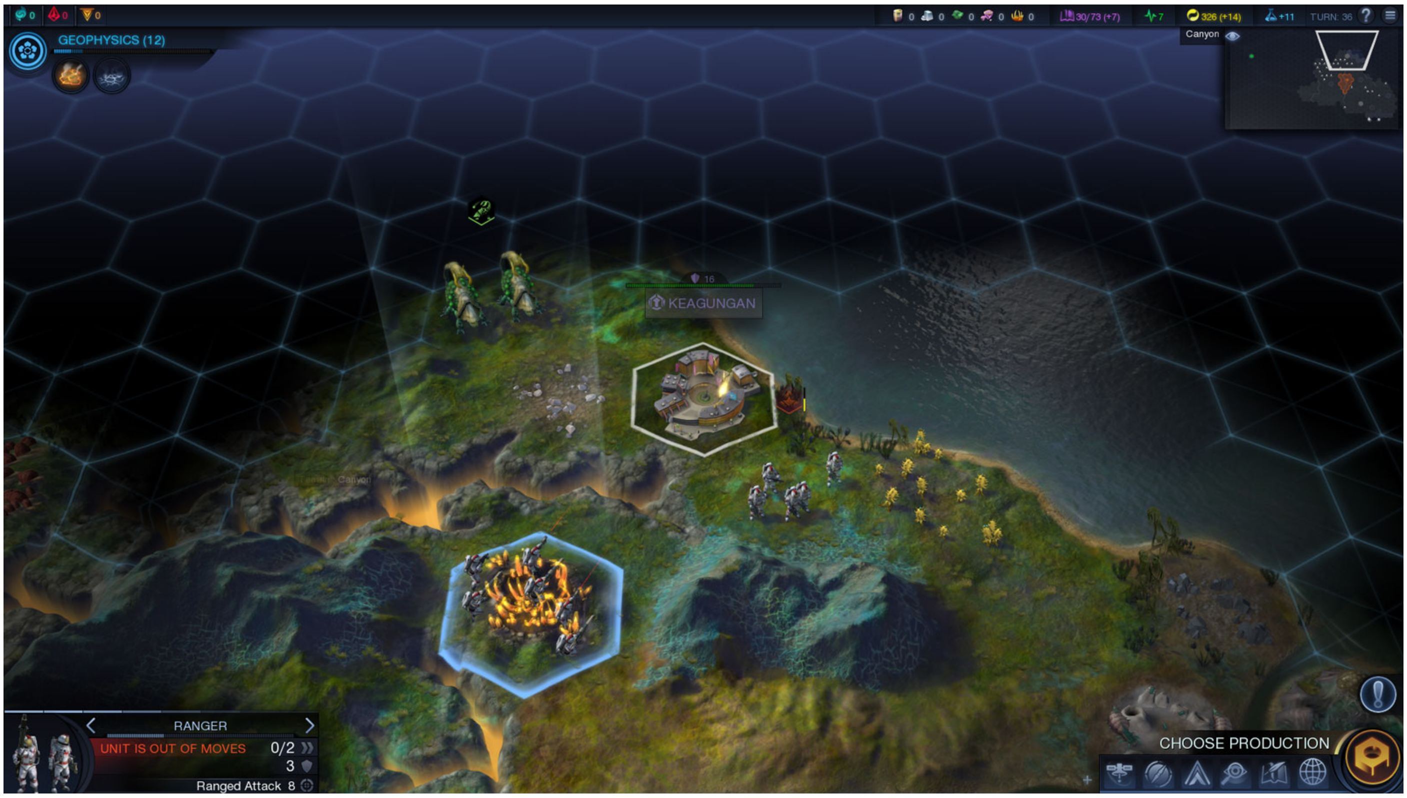


Stations

The Problems with Stations

Stations have one massive downside, and that's that they take up land. When they're close to your colony, this becomes a somewhat annoying problem because you cannot settle cities near them. Even though they physically do not take up more than one tile, your colonists must still obey the normal three-tile restriction before settling down just like with Cities. That's very troublesome if there is a nice plot of land anywhere near a Station.

Luckily, problems have solutions. You can destroy Stations with your military forces. They're way easier to trash than a major city, but they still take a few hits to bring down. They deal counterattack damage in melee, but they don't have ranged attacks. Use a melee Trooper and some ranged support to splash the Station and knock it out of your way.



Upsides: Destroying the Station frees that territory for settlements, and you get a yield bonus from taking the Station itself. In addition to that, a derelict settlement artifact is left behind. Bring an Explorer along to exploit that before anyone else can. It's a pretty good deal for the destroying party.

Neutral points: Stations are not allied with each other. You can destroy as many or as few as you like, and the other Stations won't care.

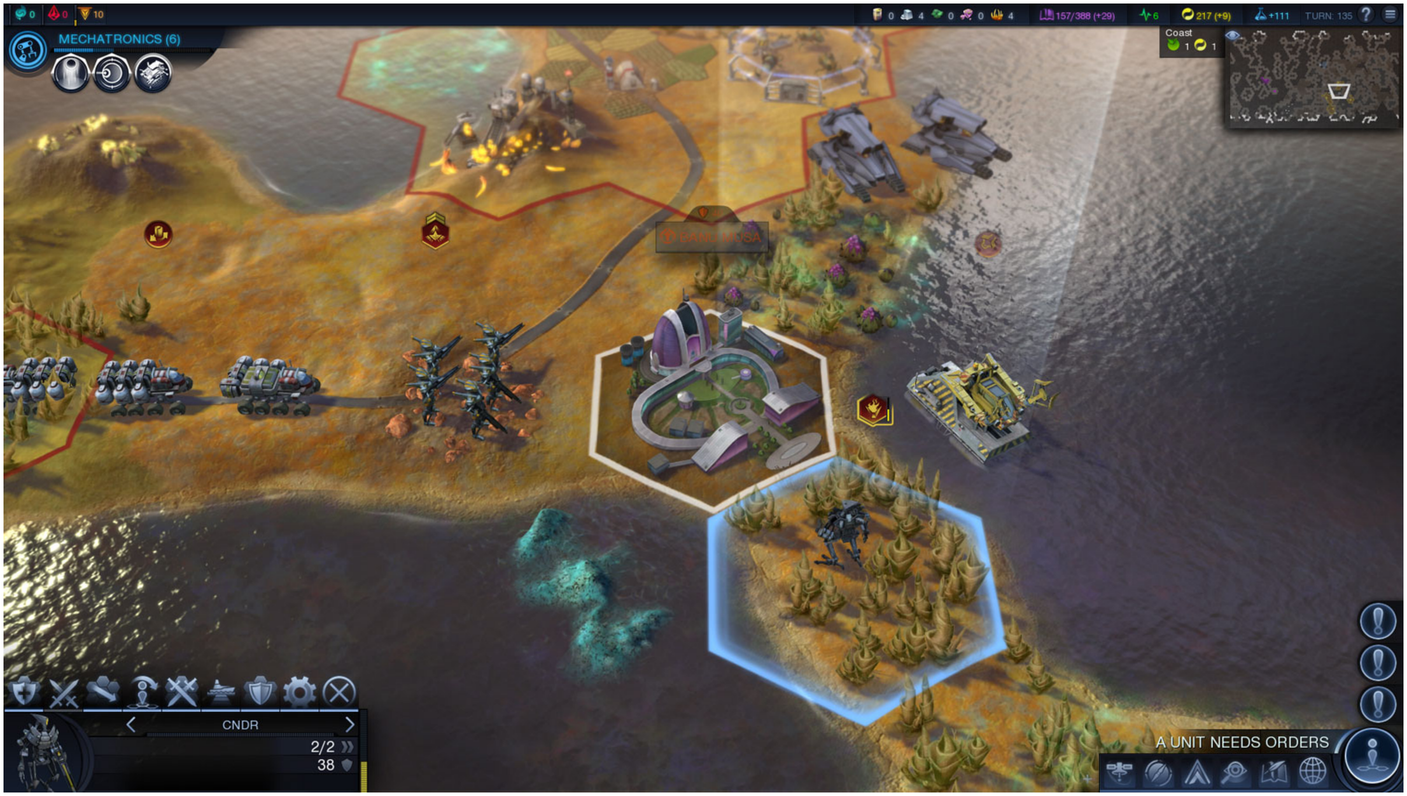
Downsides: Any colony that was trading with that Station isn't going to be too happy with you for taking out their trading partner. Avoid attacking Stations that are far away from your territory, unless you are willing to upset your rivals.

Stations

Protection and Denial

If you find a Station that you really like, consider deploying a small military force there to protect the base from aliens and rival military forces. Stations do have a habit of getting destroyed over time, especially after you reach the midgame. Undefended stations aren't always going to last, unless you watch their backs. There aren't any rewards for doing this, but those military Units can still be called away if you need them for defense or a brewing war campaign.

By the same token, you should send a group of marauders to raid Stations near your active foes. Look for enemy trade units, and go after them aggressively to get bonus Energy and deny trade to your opponent.



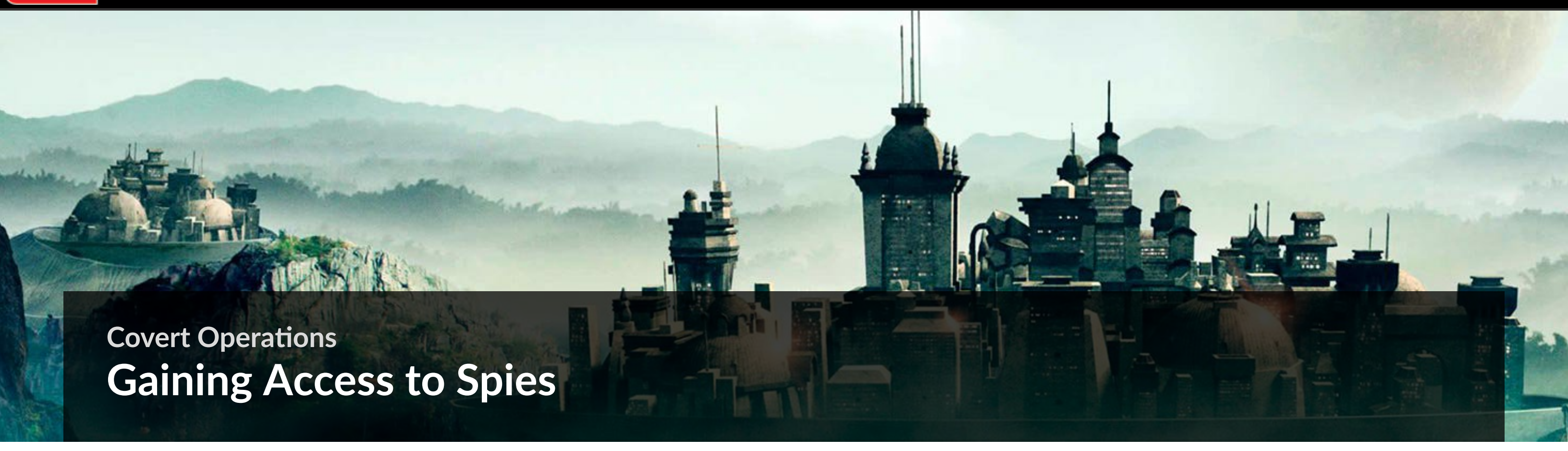
Stations

Station Withdrawal

Stations that don't receive trade partners in an area are eventually going to withdraw. They'll launch themselves off world, and other Stations are likely to take their place (in a new location) sometime soon. This can happen when the Station is at any tier, so if you have invested time into ranking up a Station, keep trading with it!

Station List

Station Name	Yield Provided
Adept Blue	2 Food, 2 Science
Banu Musa	4 Science
Camp Cascade	2 Food, 2 Energy
Church of Dawn's Light	1 Food, 3 Culture
Far Base One	2 Science, 2 Energy
Fort Barca	2 Production, 2 Energy
Golden Bell Temple	1 Food, 2 Culture, 1 Energy
Hekima	3 Food, 1 Culture
Jinsoku Labs	2 Science, 2 Production
Keagungan	2 Culture, 2 Science
Lalibela	4 Culture
New Babylon	2 Culture, 2 Energy
Omoikane	4 Food
Palatine	4 Culture
Red Sun	4 Energy
Shackleton	1 Culture, 2 Science, 1 Production
Stet Mining	4 Production



Covert Operations

Gaining Access to Spies

Not far into the technology web, you gain access to Computing, and, thus, the Spy Agency. Once building that is completed, you access an entirely different mechanic of the game: covert operations. Your Agents let you harvest free Energy and Science from your rivals, grab extra Units, attack enemy Cities, or even gain control of another person's City.

This chapter tells you how to recruit and use Agents. Become a master of covert operations, and take your play to an even higher level.

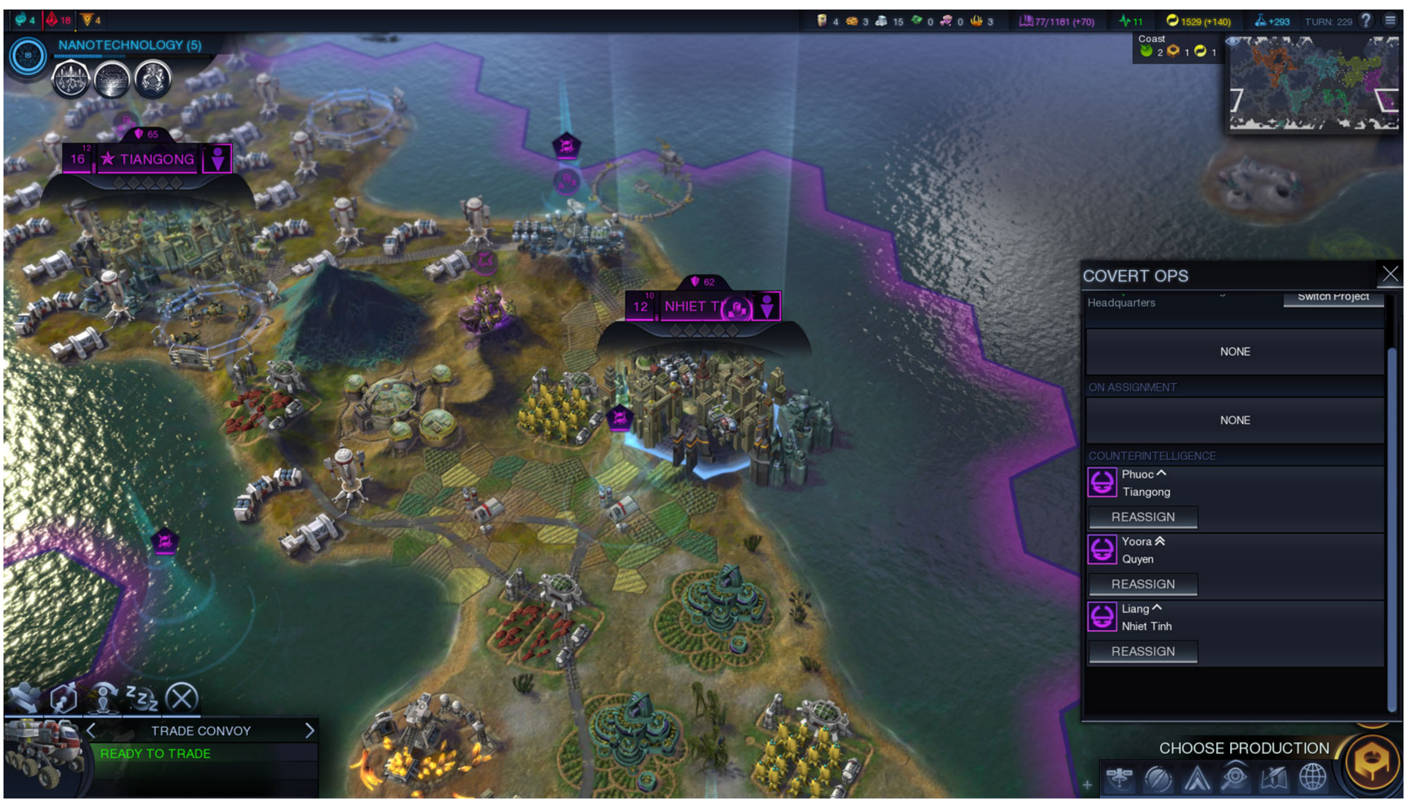
GAINING ACCESS TO AGENTS

Unlocking Agents (Quicklist)

- Research Computing
- Construct the Spy Agency building
- Use the Covert Operations screen to assign your Agents

Computing is on the first circle in the tech web, but it's more expensive than the other choices in its tier and requires at least 1 other tech to reach it. Don't grab this immediately unless you really know what you're doing. It's better to collect a few vital Research items so that your cities have something to construct while you build up toward Computing.

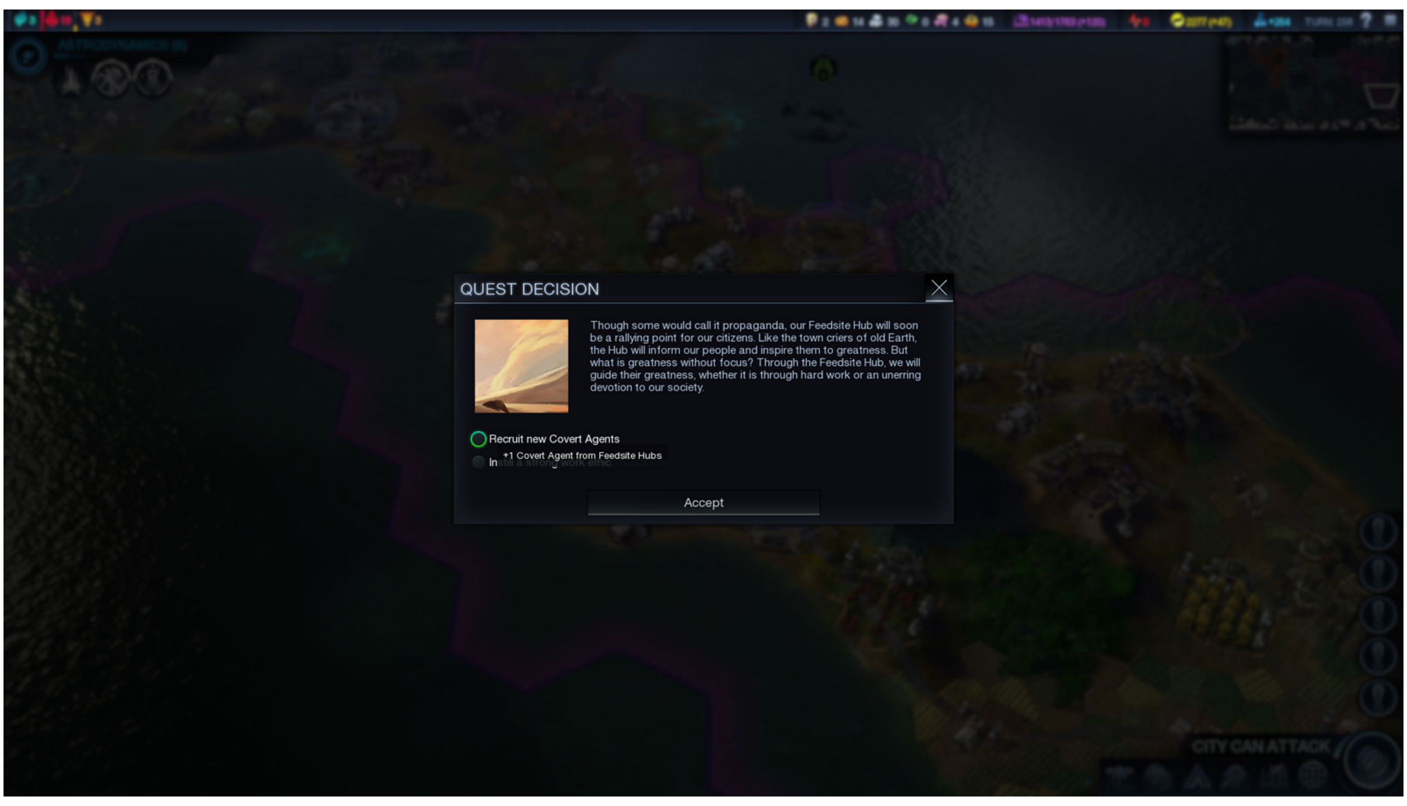
Once you're ready, research Computing, and have one of your production Cities build the Spy Agency. As soon as this is complete, you get your first three Agents. All three start out as Recruits, the lowest of three skill levels. You must then figure out how to distribute your people. This chapter explains what you can do with them a bit farther along.



You eventually get access to even more Agents. These are given as Quest rewards as you progress through the game.

Ways To Get Extra Agents Or Improve Their Actions

- Complete the Feedsite Hub Quest "Hearts and Minds" (option for +1 Covert Agent)
- Complete the Covert Ops Quest "Special Delivery" by establishing a network (option for +1 Covert Agent)
- Complete the CEL Cradle Quest "By Our Powers Combined" (option for +1 Covert Agent)
- **Take Information Warfare**: Tier III Knowledge Virtue (+1 Covert Agent)
- Complete the Surveillance Web Quest "Big Brother" (option to have Covert Agents advance faster in rank)
- **Take Special Service**: Tier II Might Virtue (+40% Intrigue from Covert Operations)
- Complete the Covert Ops Quest "//Redacted//" by performing a high-level operation (all Agents automatically become Special Agents)
- Receive the Tier II Virtue synergy bonus (+1 Covert Agent)



Though some would call it propaganda, our Feedsite Hub will soon be a rallying point for our citizens. Like the town criers of old Earth, the Hub will inform our people and inspire them to greatness. But what is greatness without focus? Through the Feedsite Hub, we will guide their greatness, whether it is through hard work or an unerring devotion to our society.

○ Recruit new Covert Agents

+1 Covert Agent from Feedsite Hubs

Agents can be killed while on assignment, but the number of slots that you've unlocked remains consistent. Slain agents are replaced over time, so you always return to your maximum number of Agents eventually.

There are three types of locations for your covert agents. You can send them to one of your Cities (counterintelligence), to a rival's City (on assignment), or leave them in their Headquarters. There are advantages to each.

Covert Operations

National Security Projects

Agents left in your Headquarters help out with your National Security Project. This is a global bonus that modestly helps all of your Cities or agents. There are several options for these Projects, and they get the full bonus for every agent you leave in Headquarters. Therefore, you can stack several of them for a higher boost. Change the Project whenever you wish, but know that this causes a delay for several turns before you start getting the new bonus. During that in-between period, you don't receive any benefits from having people at your Headquarters.

National Security Projects

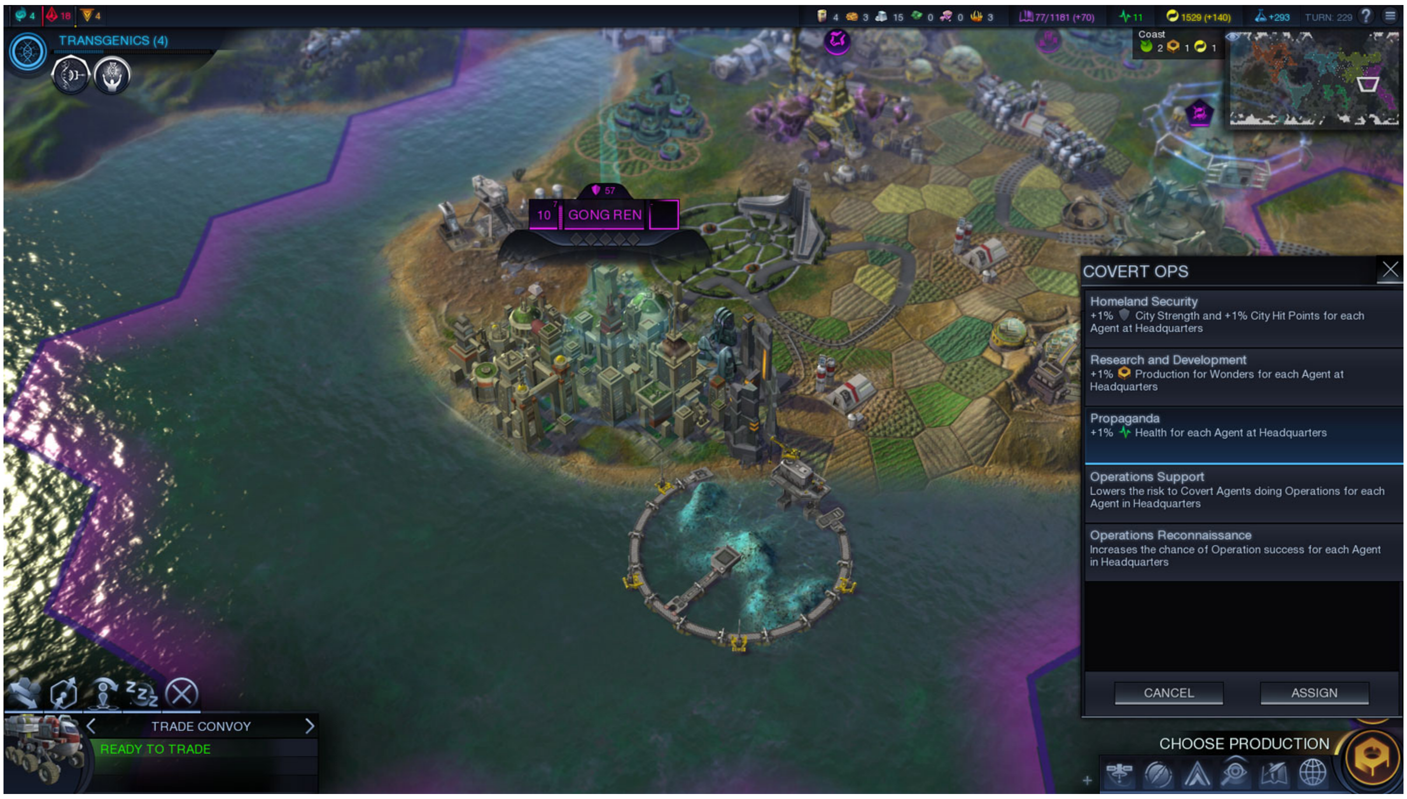
Homeland Security +1% City Strength and City Hit Points for each Agent at Headquarters

Research and Development +1% Production for Wonders for each Agent at Headquarters

Propaganda +2% Health for each Agent at Headquarters

Operations Support Lowers the risk to Covert Agents doing Operations for each Agent in Headquarters

Operations Reconnaissance Increases the chance of Operation success for each Agent in Headquarters



COVERT OPS

Homeland Security
+1% City Strength and +1% City Hit Points for each Agent at Headquarters

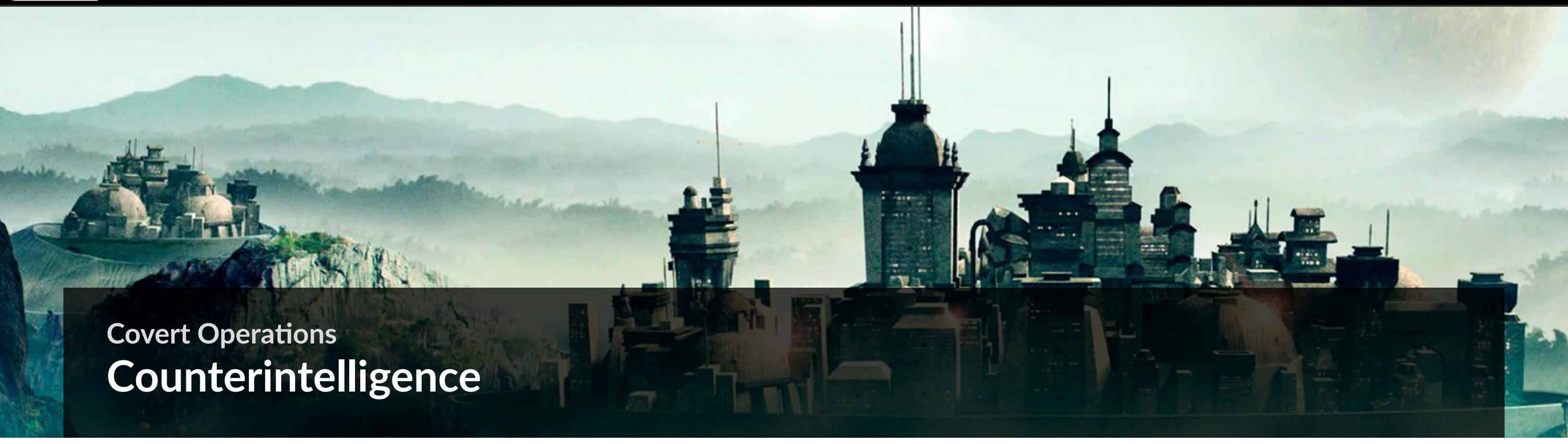
Research and Development
+1% Production for Wonders for each Agent at Headquarters

Propaganda
+1% Health for each Agent at Headquarters

Operations Support
Lowers the risk to Covert Agents doing Operations for each Agent in Headquarters

Operations Reconnaissance
Increases the chance of Operation success for each Agent in Headquarters

All of these bonuses are fairly minor, so it's not especially lucrative to have many of your Agents stay at their Headquarters. That said, there is no risk or downside to leaving people there (except for the opportunity cost from avoiding Covert Operations), and in the right circumstance, such as a high-risk Operation or an important Wonder rush, the Project can be very helpful.

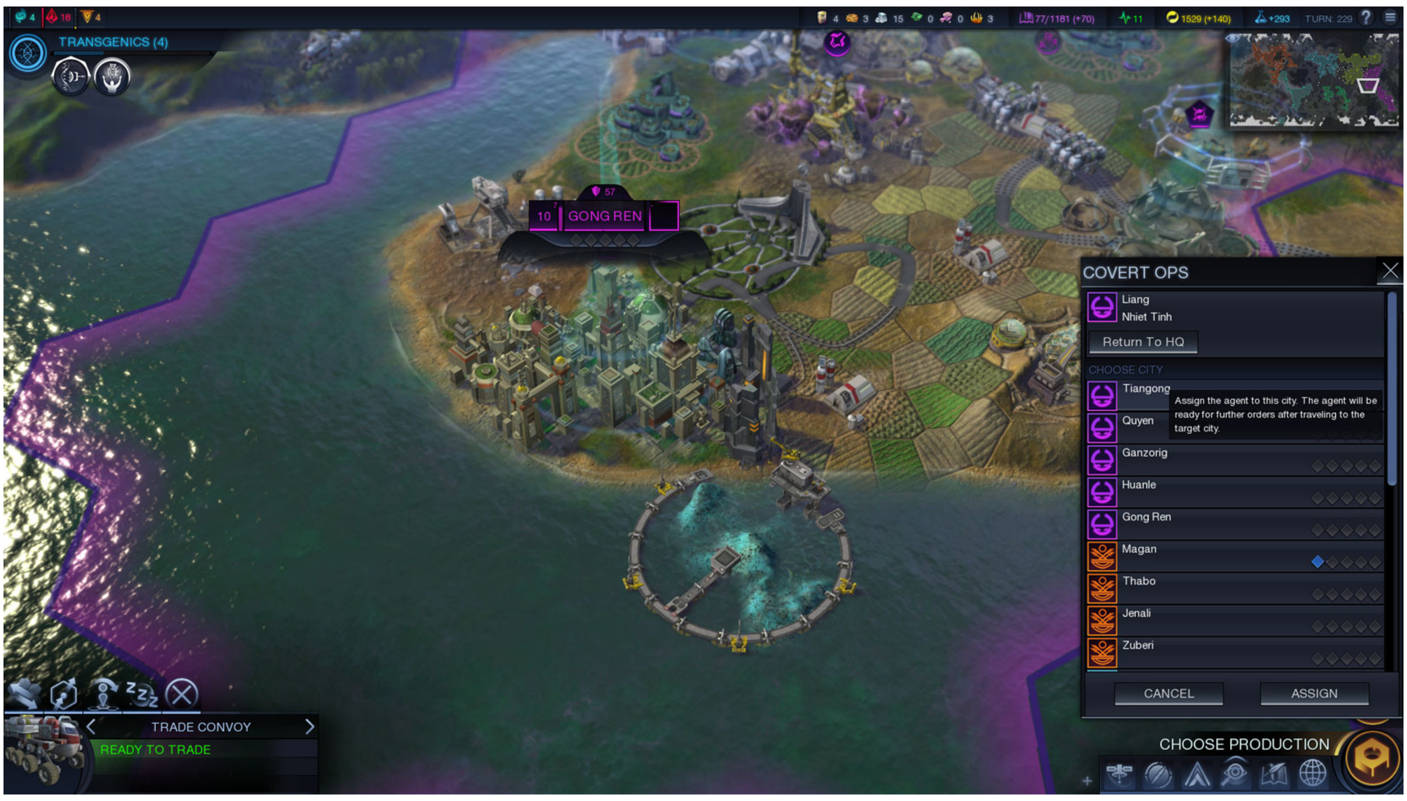


Covert Operations

Counterintelligence

Cities become more and more vulnerable to espionage depending on their Intrigue level. The more Covert Operations that are sent against a city, the higher that area's Intrigue becomes. This increases the chance of success for additional attacks, and it also allows even more frightening missions to be attempted. Low Intrigue doesn't have any potential downsides for the city or its player; the Operations that are allowable at Intrigue Levels 1-3 have no deleterious effects for the City or player that they're unleashed against. It's at Intrigue Levels 4 and 5 that things go from annoying to scary.

To protect yourself from this threat, send your Agents to your own Cities. Agents placed on counterintelligence raise the chance of catching enemy Agents who are operating in that City, and your Agents also improve the rate that your City returns to a lower Intrigue level.

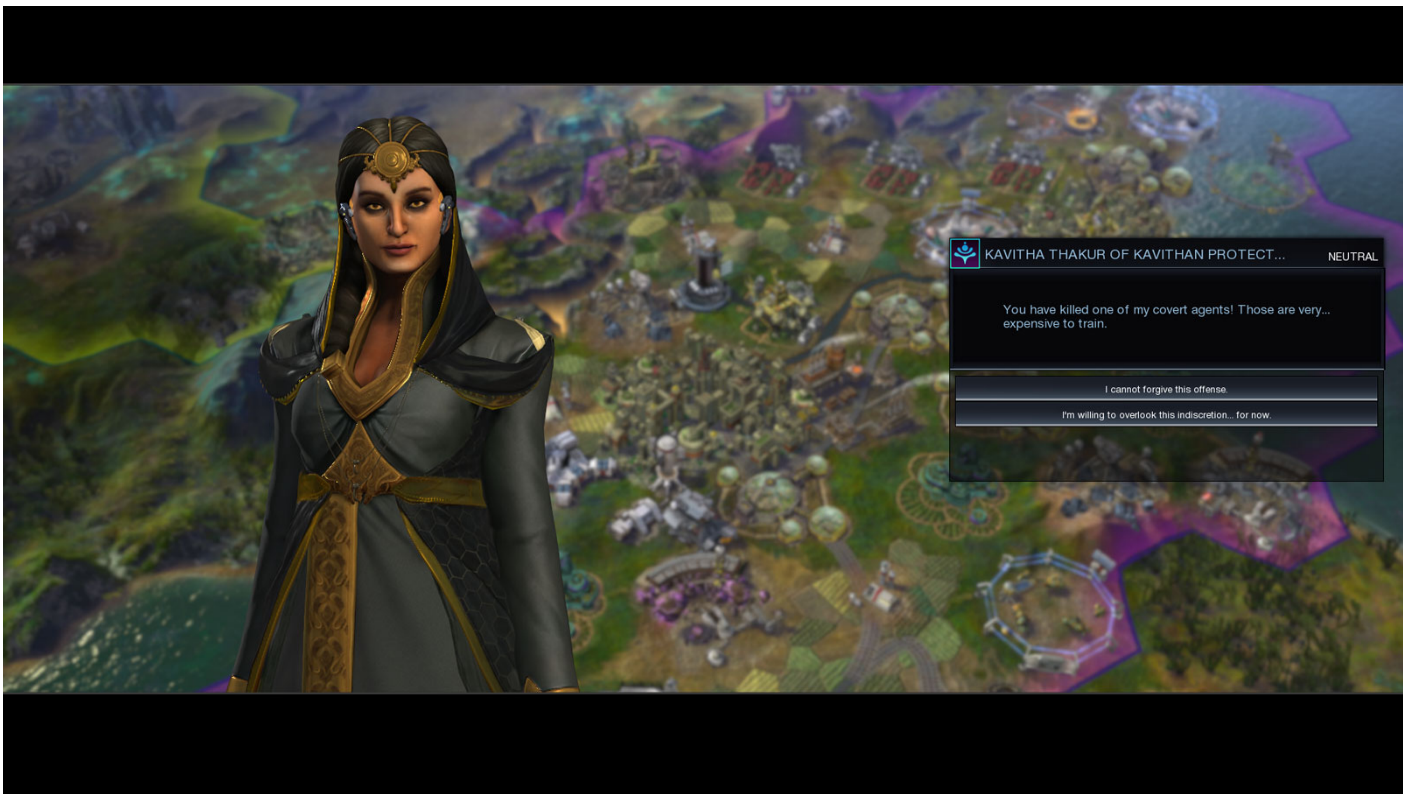

TRANSGENICS (4)
10 GONG REN
COVERT OPS
Liang
Nhiet Tinh
Return To HQ
CHOOSE CITY
Tiangong
Quyen
Ganzorig
Huanle
Gong Ren
Magan
Thabo
Jenali
Zuberi
CANCEL
ASSIGN
CHOOSE PRODUCTION
TRADE CONVOY
READY TO TRADE

Assign the agent to this city. The agent will be ready for further orders after traveling to the target city.

Use the Assignment screen to quickly look at all of your Cities, and send Agents to the Cities that have worrisome levels of Intrigue. You can also see the Intrigue level of a City in the City Manager. Open the City Manager and look at the row of five diamonds that is underneath the Border Growth indicator. The more diamonds that fill, the more Intrigue that city has. Beware!

Another way to reduce the effects of Intrigue is to construct Surveillance Webs in key Cities that are under frequent attack. These defensive buildings take the threat of serious covert attacks entirely off the table for the City in question, capping the City's Intrigue level at 3.

Counterintelligence has no negative consequences diplomatically. In fact, you can even score a few brownie points with other colonies. If you catch and kill their spies and then choose to forgive the transgressor, you gain a mild bonus with that sponsor in the future. That's pretty cool for doing something that helps you defensively anyway.


KAVITHA THAKUR OF KAVITHAN PROTECT...
NEUTRAL

You have killed one of my covert agents! Those are very... expensive to train.

I cannot forgive this offense.

I'm willing to overlook this indiscretion... for now.

Covert Operations

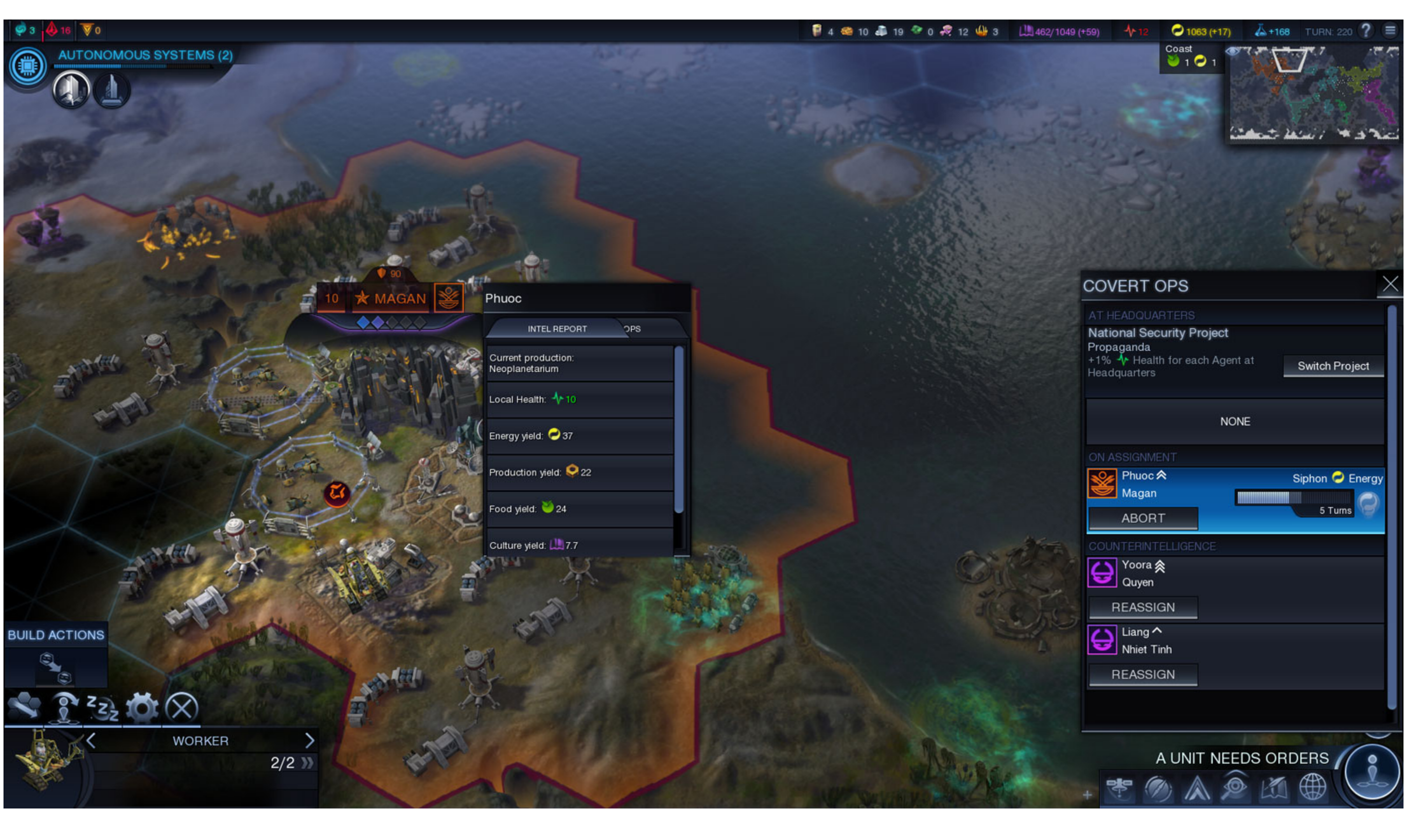
Covert Operations Assignments

Place your Agents on assignment by sending them to an enemy City from the Covert Operations screen. Avoid assigning anyone against colonies that you need to keep friendly; you're always going to be taking a risk when you launch Operations against your opponents. It's best to be aware of this and to work against people who are already enemies or other dangerous opponents.

Give your Agents a few turns to travel to their new location, and then give them Operations to attempt against the target City.

Covert Operations

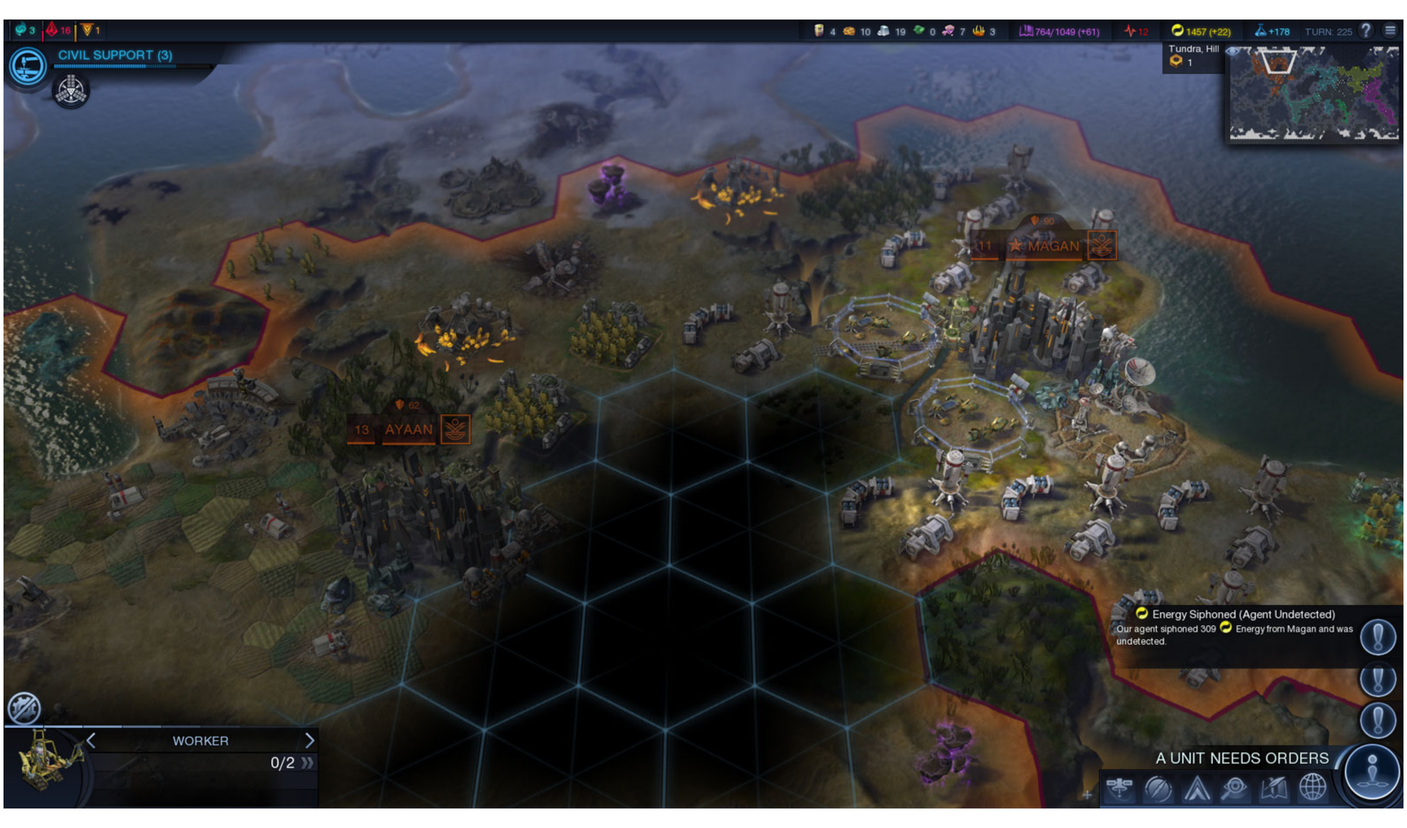
Assignment	Difficulty	Requirements	Effect
Establish Network	Very easy	None	Gather information about the city, the network remains until the Agent leaves the city or is killed; very low risk, great when assessing territory for attack
Siphon Energy	Easy	None	Steals Energy from the City; this does not actually reduce the reserves in your rival's stockpile
Steal Science	Easy	1 Intrigue	Steals Science from the City; this does not actually reduce your rival's Science output
Steal Technology	Moderate	2 Intrigue	Steal a random technology
Recruit Defectors	Moderate	3 Intrigue	Recruit a random military unit which will be placed near your Capital
Hack Satellites	Moderate	4 Intrigue	De-orbit satellites within 5 hexes of the City
Coup D'etat	Moderate	5 Intrigue	Claim control of the City for yourself
Dirty Bomb	Hard	5 Intrigue, 11 Purity	Detonate a nuclear device in the city, reducing the City's population by half
Call Worm Strike	Hard	5 Intrigue, 11 Harmony	Activate a harmonic device that attracts Siege Worms to a City (Chomp!)
Sabotage	Hard	5 Intrigue, 11 Supremacy	Pillage all improvements within 3 tiles of the City


AUTONOMOUS SYSTEMS (2)
MAGAN
Phuoc
INTEL REPORT
OPS
Current production: Neoplanetarium
Local Health: 10
Energy yield: 37
Production yield: 22
Food yield: 24
Culture yield: 7.7
COVERT OPS
AT HEADQUARTERS
National Security Project
Propaganda
+1% Health for each Agent at Headquarters
Switch Project
NONE
ON ASSIGNMENT
Phuoc
Magan
Siphon Energy
5 Turns
ABORT
COUNTERINTELLIGENCE
Yoora
Quyen
REASSIGN
Liang
Nhiet Tinh
REASSIGN
BUILD ACTIONS
WORKER
2/2
A UNIT NEEDS ORDERS
TURN: 220

The higher the difficulty, the better the chance that your Agent won't be able to complete the assignment. However, there are different tiers of failure. Success is rather direct; you get what you wanted out of the Operation. Failure is a sliding scale, where the penalties might be anything from minor to severe.

Operation Outcomes

- **Undetected**: The defending player is not notified that anything has happened (whew!).
- **Detected**: The defending player is notified that a Covert Operation took place, but not told who perpetrated it.
- **Identified**: The defending player is notified that a Covert Operation took place and told who perpetrated it. The Agent survives, but you face diplomatic complications.
- **Killed**: The defending player is notified that a Covert Operation took place and told who perpetrated it; your Agent is killed, and you face diplomatic complications.


Energy Siphoned (Agent Undetected)
Our agent siphoned 309 Energy from Magan and was undetected.
CIVIL SUPPORT (3)
MAGAN
AYAAN
WORKER
0/2
A UNIT NEEDS ORDERS
TURN: 225

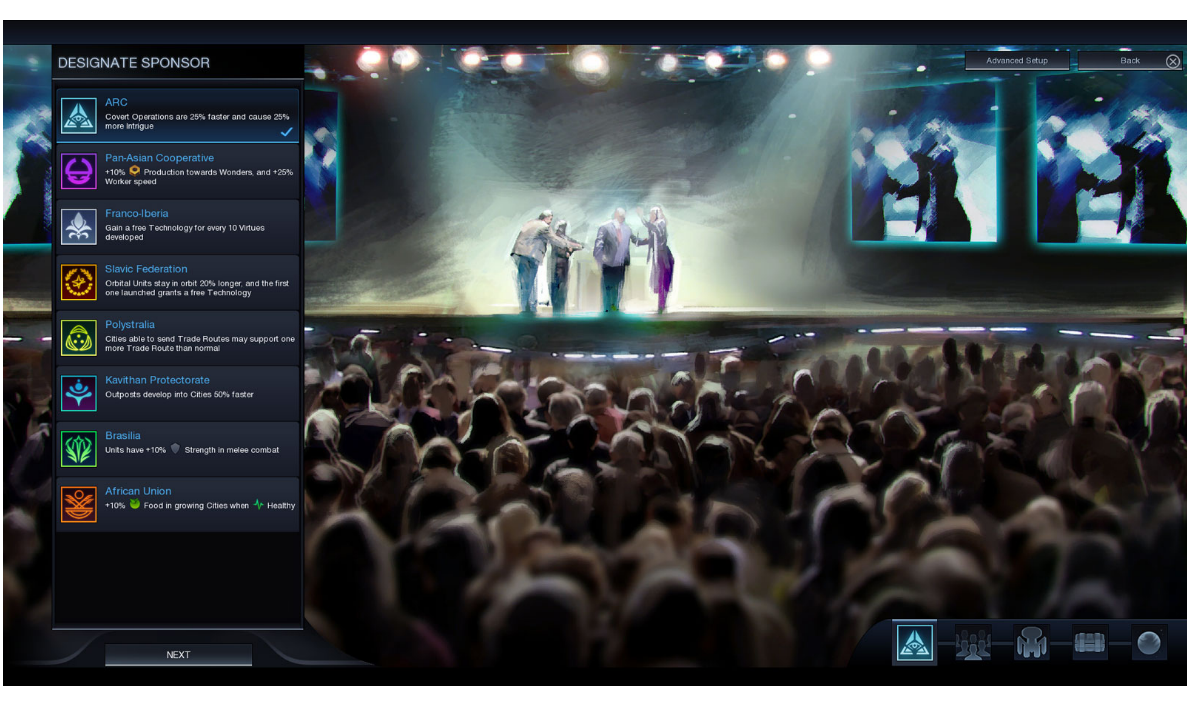
To maximize your chance of success and to avoid diplomatic issues, only send your more experienced Agents to do dangerous tasks. Have people "train" by working on establishing networks and stealing Energy and Science. These tasks aren't as difficult or as dangerous, so you can get your Agents to higher ranks somewhat safely.

When attempting really tough Operations, have your best Agent go to the target City, and have other Agents return to Headquarters while using Operations Reconnaissance as your National Security Project. That gives you the best chance to succeed in your endeavor.

Spies start as Recruits, level into Agents, and then become Special Agents. Higher-tier Agents not only succeed more often, but they also obtain better results. They'll gain more information when establishing networks, steal more Science and Energy for your colony, and look suave while doing it all. The difference between spy ranks is very substantial. Secret Agents, for example, steal roughly triple the amount that Recruits gain.

ARC: Was There Ever Any Doubt?

It almost goes without saying that ARC is the best sponsor for anyone who wants to devote major resources to spying on their enemies. The ARC bonus lets you finish missions faster and build Intrigue very quickly. This turns Covert Operations into an even deadlier tool for weakening opponents.


DESIGNATE SPONSOR

ARC
Covert Operations are 25% faster and cause 25% more Intrigue

Pan-Asian Cooperative
+10% Production towards Wonders, and +25% Worker speed

Franco-Iberia
Gain a free Technology for every 10 Virtues developed

Slavic Federation
Orbital Units stay in orbit 20% longer, and the first one launched grants a free Technology

Polystralia
Cities able to send Trade Routes may support one more Trade Route than normal

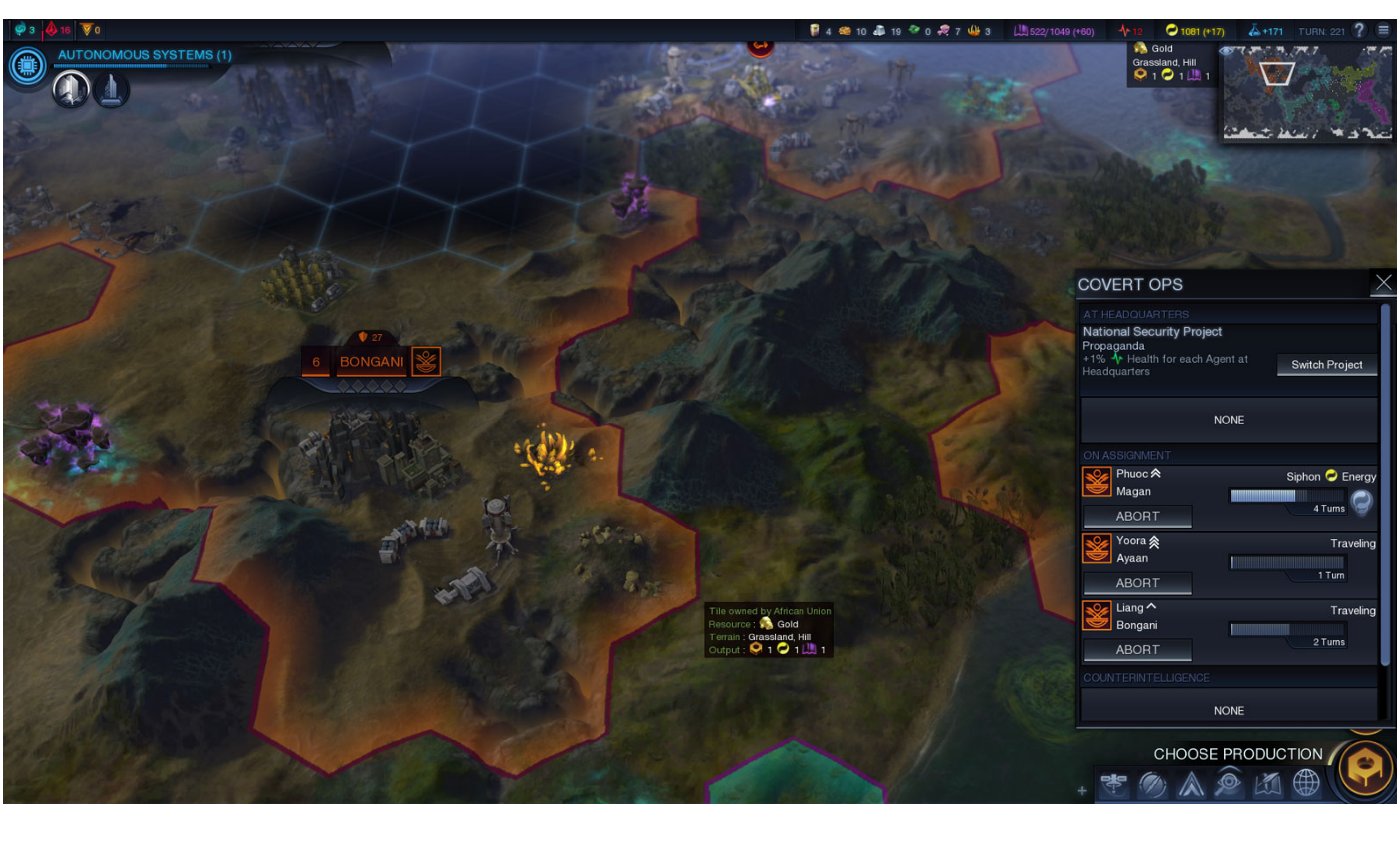
Kavithan Protectorate
Outposts develop into Cities 50% faster

Brasilia
Units have +10% Strength in melee combat

African Union
+10% Food in growing Cities when Healthy
Advanced Setup
Back
NEXT

SAFE SPYING

Figure out a style of spying that works best for your colony. It's easy to sit back and defend the entire game because that's safe. It's simple. But, it's also a massive waste of your potential. Careful spying gets you a huge boost to your yields and doesn't have to tick off the entire world. There are ways to avoid consequences while spying.


AUTONOMOUS SYSTEMS (1)
BONGANI
Tile owned by African Union
Resource: Gold
Terrain: Grassland, Hill
COVERT OPS
AT HEADQUARTERS
National Security Project
Propaganda
+1% Health for each Agent at Headquarters
Switch Project
NONE
ON ASSIGNMENT
Phuoc
Magan
Siphon Energy
4 Turns
ABORT
Yoora
Ayaan
Traveling
1 Turn
ABORT
Liang
Bongani
Traveling
2 Turns
ABORT
COUNTERINTELLIGENCE
NONE
CHOOSE PRODUCTION
TURN: 221

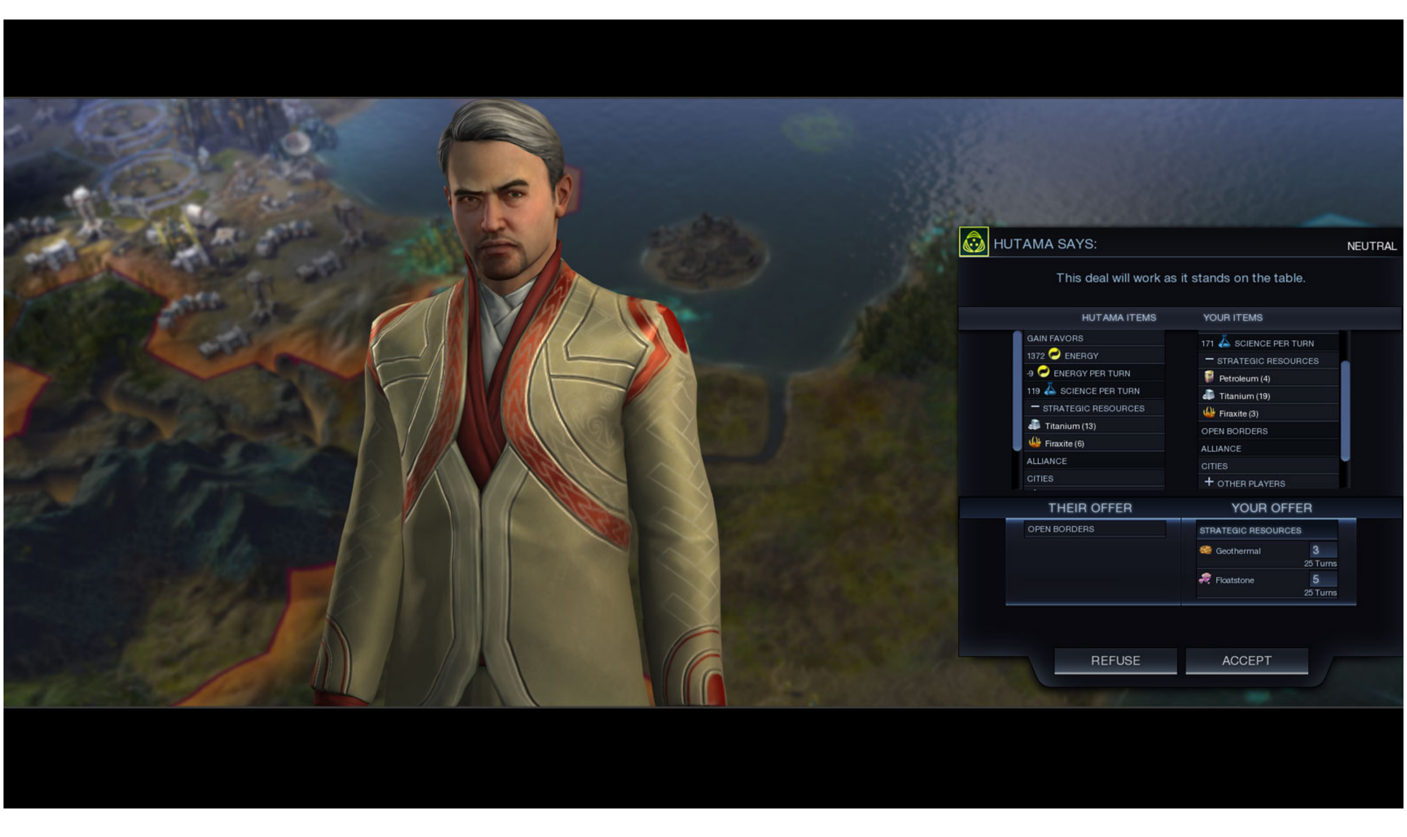
First, try targeting just one rival. If you spy against everyone and have a string of failures, you might get into a rather ugly war. If you're not ready to take on the world, pick your worst enemy, and send all of your Agents into their Cities. Even if they fail, you aren't getting into any new trouble because things were already sour with that rival.

Another option is to stay modest with your goals. Stealing Energy and Science isn't going to backfire too often. Don't try to reach beyond these easy tasks, and enjoy a long game of free income.

TACTICAL OBSERVATION

Stealing is all well and good, but Agents can also help you win wars. If you're looking for a weak spot in your opponent's border, go beyond scouting. Send Agents into border Cities, and establish networks there. Use this to look into enemy troop dispositions, the lay of the land, and the purpose of your enemy's city. What are they doing there? Can the city be approached easily from a side that you couldn't see before?

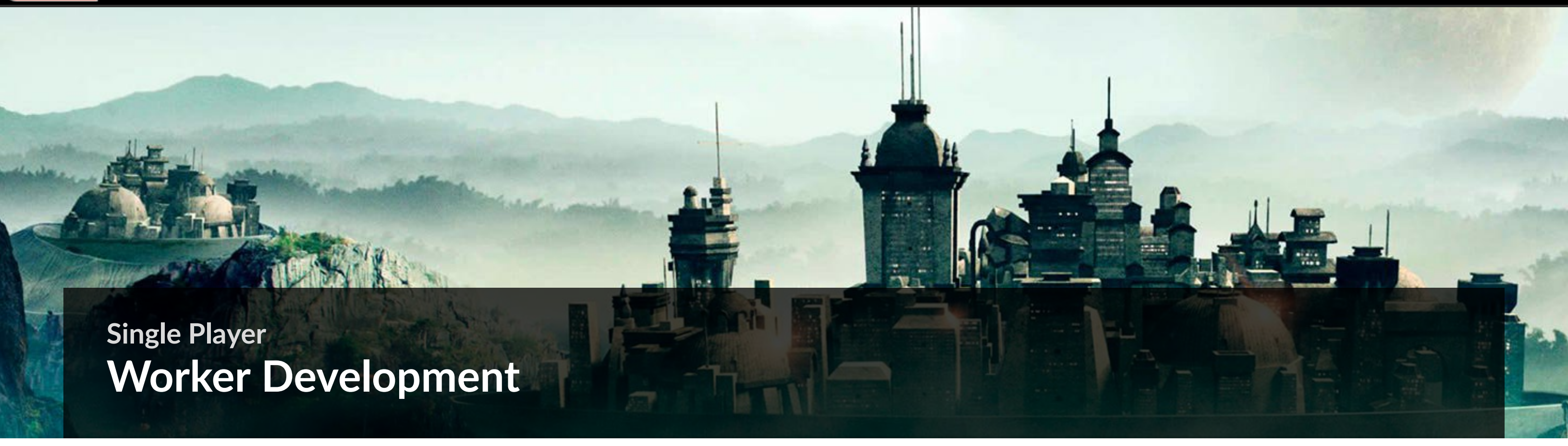
Establishing open borders serves a similar function, but that can be costly and is hard to set up with nations that you're planning to attack. Why pay for your scouts to walk through when your Agents can travel free of charge? Hey, it's only taxpayer money, right?


HUTAMA SAYS: NEUTRAL

This deal will work as it stands on the table.
HUTAMA ITEMS
GAIN FAVORS
1372 ENERGY
-9 ENERGY PER TURN
119 SCIENCE PER TURN
STRATEGIC RESOURCES
Titanium (13)
Firaxite (6)
ALLIANCE
CITIES
YOUR ITEMS
171 SCIENCE PER TURN
STRATEGIC RESOURCES
Petroleum (4)
Titanium (19)
Firaxite (3)
OPEN BORDERS
ALLIANCE
CITIES
OTHER PLAYERS
THEIR OFFER
OPEN BORDERS
YOUR OFFER
STRATEGIC RESOURCES
Geothermal 3 25 Turns
Floatstone 5 25 Turns
REFUSE
ACCEPT

COVERT DOMINATION

Use Coups to take out enemy Capitals if they're foolish enough not to protect their best Cities. It won't matter if you can't keep the Capital beyond those early turns; the point is to ruin another person's chance at a Domination victory. This is nice if you're trying to win via Domination, or if you're afraid that another player is going to try to take over the world. Take that opportunity away, and you might force them into trying a more peaceful route. Even if they regain their City, you've succeeded in seriously hindering their progress for quite some time.



Worker Development

Once you've read the rest of this guide, you're going to have an extremely good sense of what everything does. You've researched buildings, wonders, Technology, units, concepts, and pretty much anything that can come up during play. So what's left to talk about?

The answer is thinking about major strategies and tricks that bring these ideas together. Don't focus on individual elements of the game and hope that they lead you toward victory. Instead, plan to use as many combined ideas as possible to give your nation many advantages. The more goodies you get, the better your chance for winning the game. It's time to pull it all together!

WORKER DEVELOPMENT

This is a tried and true aspect of *Civilization*, but it bears repeating: use your workers! Cities that aren't developed have a huge power gap compared with cities that are surrounded by a number of improved tiles. Even the weaker early-game improvements add at least one resource point for every tile that gets improved and worked. That adds up to quite a few points per turn of various goodies even by the midgame, and if you hold on to your cities, you're going to have potentially a couple hundred more turns getting those resources.

Don't wait long before getting a worker going. As general pacing, try to have your capital get an improved tile for every point of population it has (at least until you start getting so large that specialists are available and viable).

GENETIC DESIGN (3)
JIMBOOMBA
MIASMIC REPULSOR
READY TO LAUNCH
CHOOSE PRODUCTION

Also, make sure that almost all of your cities get their own worker. Those workers don't have to be stationed near the city at all times. There are often periods where one city is developed well enough and another needs more help. It's fine to shift around your work force, in the same way that it's smart to shift around your military to bolster areas that are under attack.

Have your workers construct roads over to outposts before they even become cities. You want city connections to start yielding Energy as soon as possible. This really helps to keep your nation profitable.

Also, try not to wait until a city has three or four residents before improving their tiles. Either buy a worker at that location, or build a worker at a larger city and send him or her over as the outpost is grabbing territory. Do not train workers at your new city! This is a major waste of the city's early Production time. Workers need to work on buildings to improve their Growth and Industry. You should train units elsewhere, at a location with high Production, and send things over to the fledging city. This is true for garrison units, workers, and trade units, as well!

ASTRODYNAMICS (8)
Titanium
Forest, Plains, Hill, Miasma
CITY CAN ATTACK

You don't even need to wait for an outpost to become a city to start working its tiles. As soon as the territory expands, your workers can get started. That new city might begin its life with one or two improved tiles all ready to go. Quite nice!

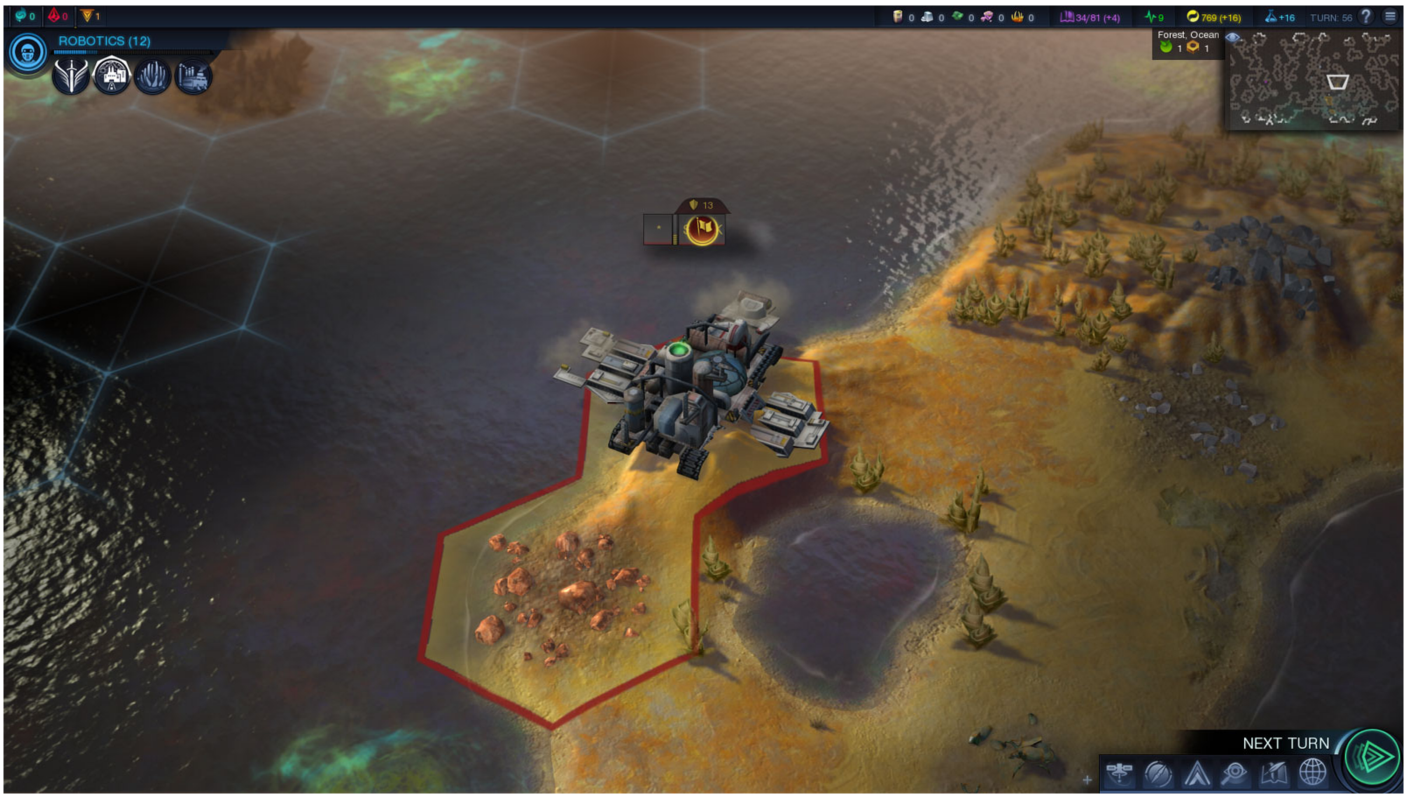
Single Player

Founding Cities

Don't settle your cities willy-nilly; that only leads to underdevelopment. Put everything too close together, and your cities compete with each other for tiles. Space them too far apart, and you're going to languish with expensive roads, longer travel times, and more danger from aliens and raiders. You really want your borders to expand homogenously; gaps in your territory, even small ones, are going to have rival units wandering around. They won't even need open border agreements, and they can spy on you, look for weak points, etc.

Traits For An Ideal City Location

- Select locations that have basic or strategic resources (both of which are very important).
- Use rivers to increase Energy output.
- Settle on the coast for expanded trade opportunities because aquatic trade routes have higher yields.
- Areas near mountains and canyons are harder to siege because of their limited passable tiles.
- Hills provide defensive bonuses for your city.
- Avoid too many tiles with tundra, desert, or even marshes because these have lower yields and higher development issues.
- Locations that are five or six tiles from your nearest city are in the sweet spot between being too far to support and too close for comfort.



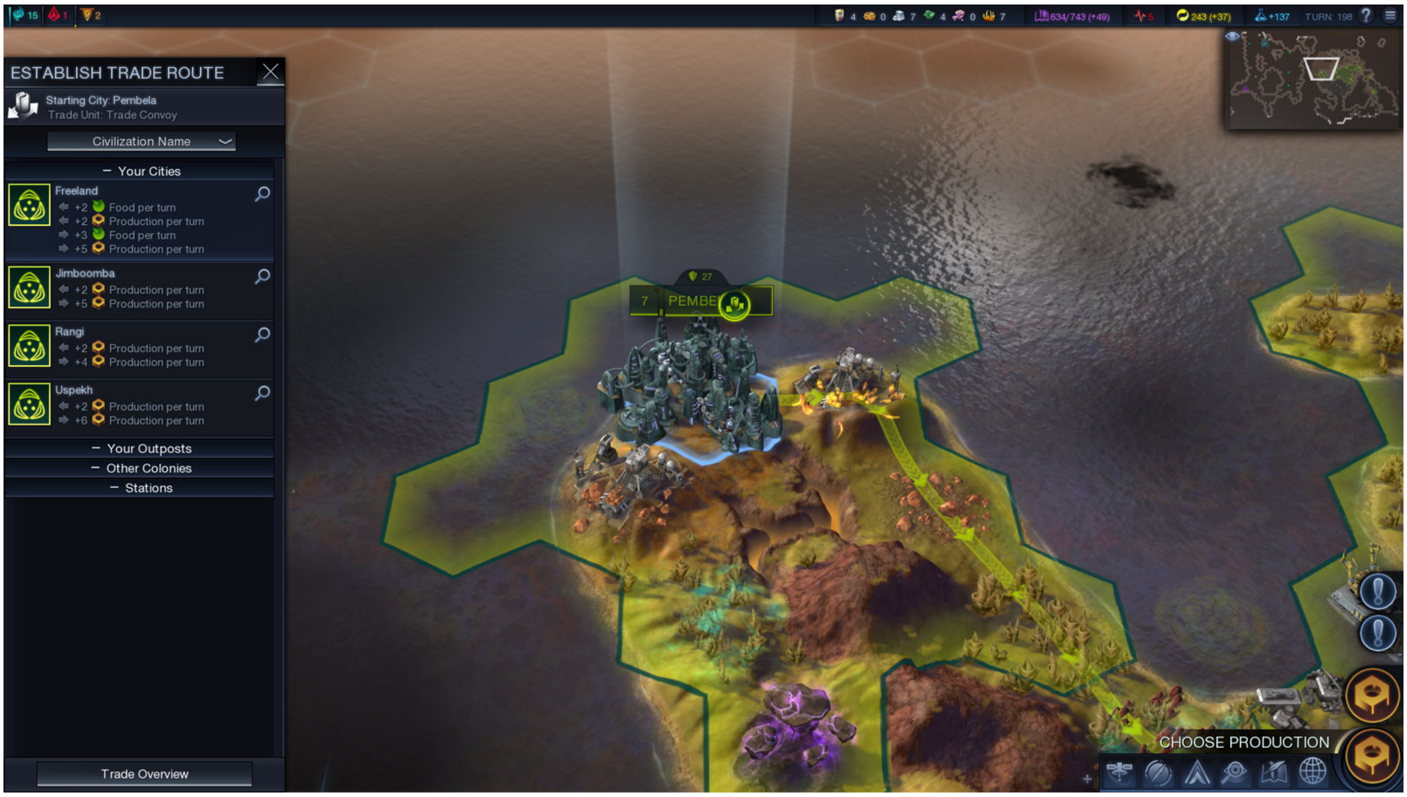
When sending out your colonists, be very cautious. Have a military unit move with them, and try to avoid scouting with this pair. Going into unknown territory can get you surrounded by aliens, ambushed by raiders, or cause wasted time because you discover that the terrain is totally crummy for settling. You won't normally get attacked by the computer at this stage, but this habit will get you slammed in multiplayer games. Early game raiding is entirely possible and effective, so watch out!

Single Player

Trade Routes for Internal or External Power

You've already learned how much you can get out of trade routes, but it's still worth focusing on one last time. Trade routes are one of your most impressive tools for gaining resources, building new cities, and making friends. Rival nations are more reluctant to attack you if you have a trade route with them. Use this to make friends, and then wait for your rivals to attack each other instead. The more fighting the computer does against itself, the better off you are. You can join in to squish someone else and take their land, or simply sit back and let the other nations exhaust each other. Win-win.

Young cities need internal trade routes the most. Sending convoys to those cities (and out from them) is the best way to get free Production and Food for cities that have little of their own. You can end up seeing population increases every couple of turns and spit out buildings almost as frequently. For a new city, that is crazy speed.



ESTABLISH TRADE ROUTE

Starting City: Pembela
Trade Unit: Trade Convoy

Civilization Name

– Your Cities

Freeland
+2 Food per turn
+2 Production per turn
+3 Food per turn
+5 Production per turn

Jimboomba
+2 Production per turn
+5 Production per turn

Rangi
+2 Production per turn
+4 Production per turn

Uspekh
+2 Production per turn
+6 Production per turn

– Your Outposts
– Other Colonies
– Stations

When outposts are close to becoming cities, it's worth holding off on your trade convoys so that they're ready for the new city as soon as it hits population 1. As convoys naturally end their trade routes, have a few sit for a turn or two when you're that close to gaining a new city. Then, instantly initiate their trade routes when the city spawns. To have a bit of fun, look at the Food and Production of the city before you do this and then again afterward. Can you reach 10 times the Food and Production numbers on the first turn of that city? You sure might.

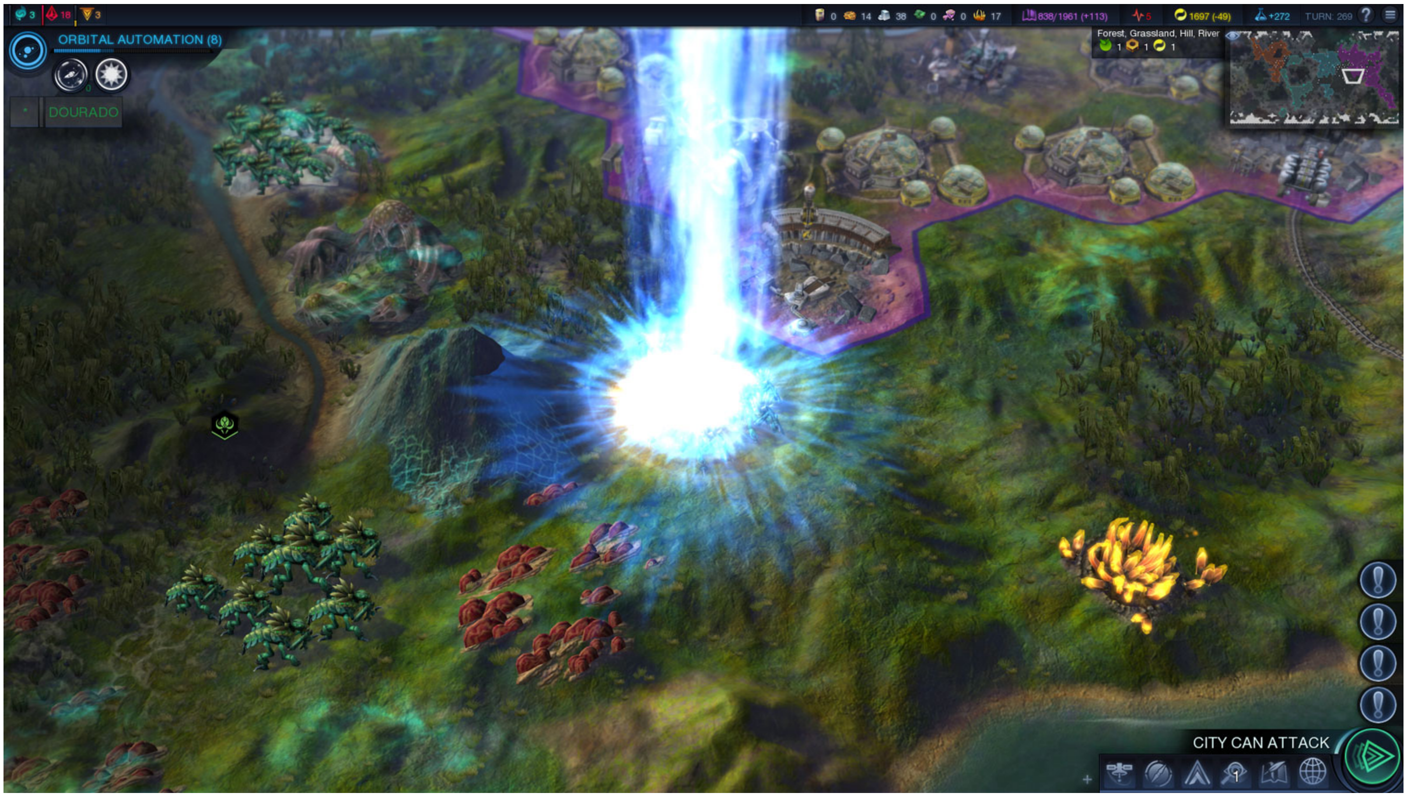
As your cities reach higher populations and gain their own substantial Production values, you start needing those routes a bit less. They're still wonderful, but you can afford to devote more trade routes to external sources. The Science and Energy you get from this is wild, especially in maps with well-developed coastlines. Naval trade between large cities is awesome for Science.

Single Player

Use Those Orbitals

It's easy to lose track of your orbital layer and only pop in when you really need something. "This miasma is annoying me. Oh, I can build a Repulsor for that." Sure, that's fine and all, but you're not taking enough advantage of orbitals if you play that way. You really should devote one of your secondary cities toward orbital creation once you get a bit further into the game and have better Technology. The bonuses to your yields from most orbitals are nifty, and not all of the orbitals even have strategic resource requirements.

Throw out orbitals as often as you can. Defend your borders when enemies start to gather. Don't wait for war. Deploy satellites as soon as you see a force building. It's your friendly way of saying, "I see you, and your very flammable army."



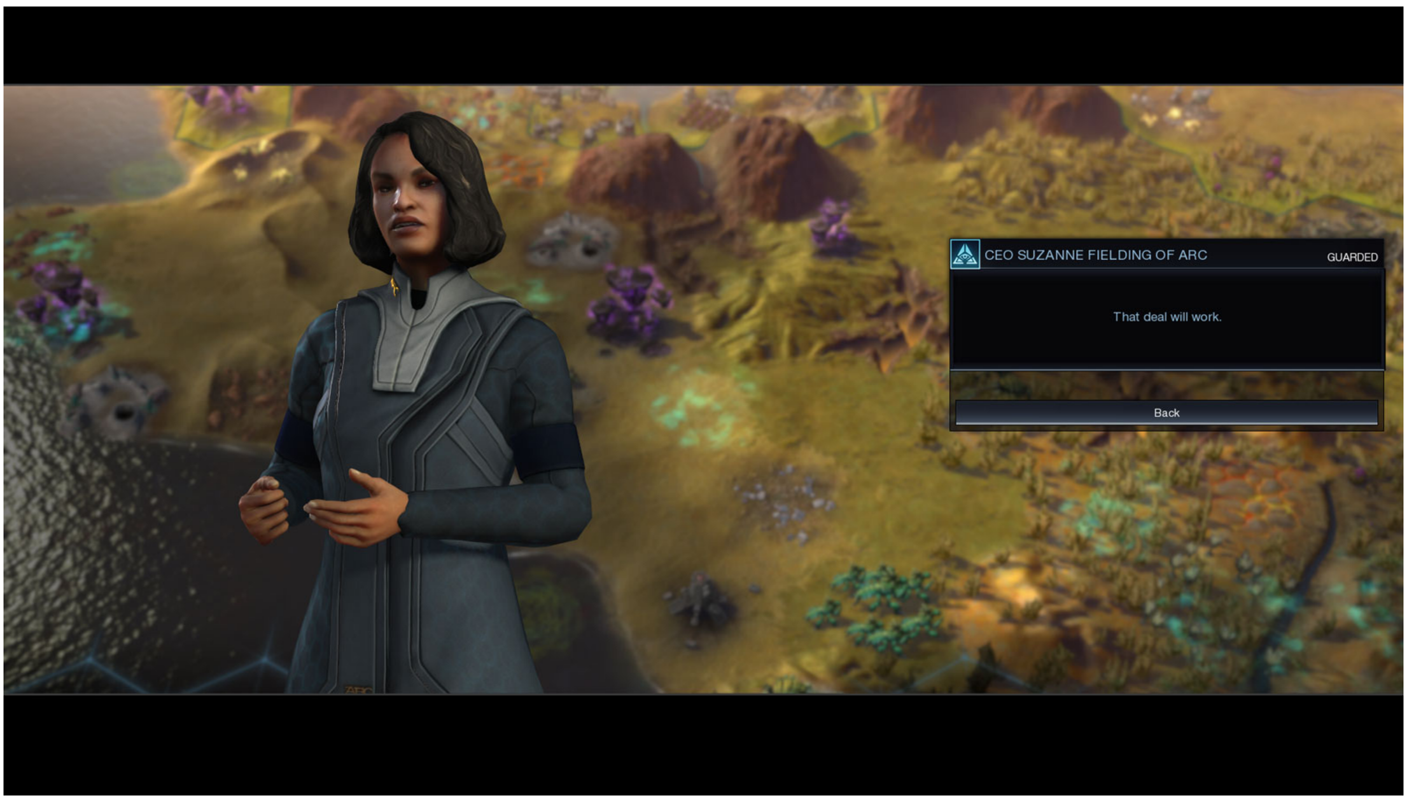
Because orbitals haven't been a part of *Civilization* before now, old veterans are going to be some of the worst neglectors when it comes to these units. Force yourself to play with them, and you won't regret it once the habit forms. These little toys are game changers if you know what you're doing. Big bonuses are just a few turns of work away.

Single Player

Diplomacy Lets You Pace Your Conquests

Even warmongers need diplomacy. You can't take on the entire world at the same time until you have a huge military. That's not possible in the early turns of the game. You must keep at least a few nations relaxed while their neighbors get crushed underfoot.

Use trade routes, cooperation agreements, and mutual wars to help people think that you're a nice nation. It doesn't have to be accurate, and you won't have to keep up any pretenses forever. You just need to buy time as you get stronger and stronger.

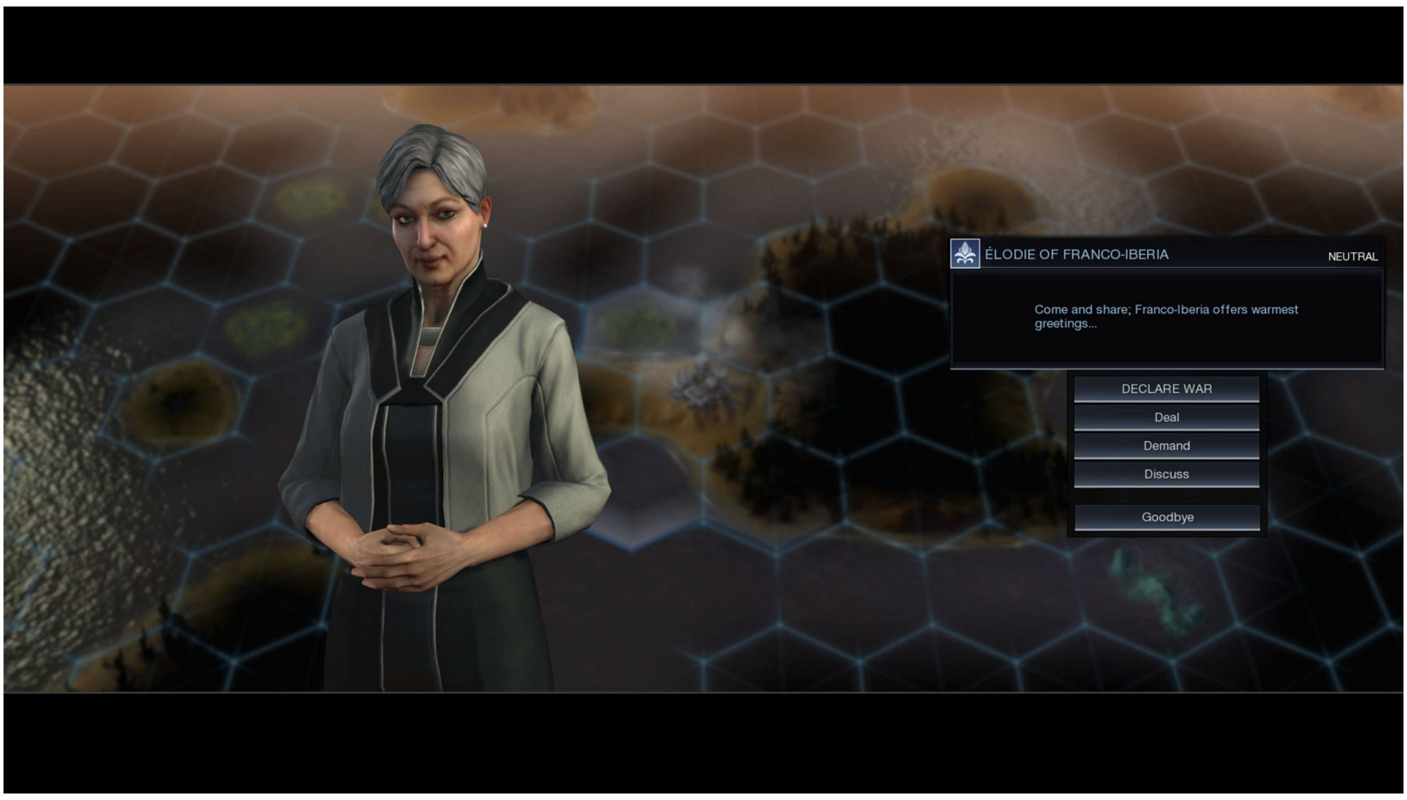


That deal will work.

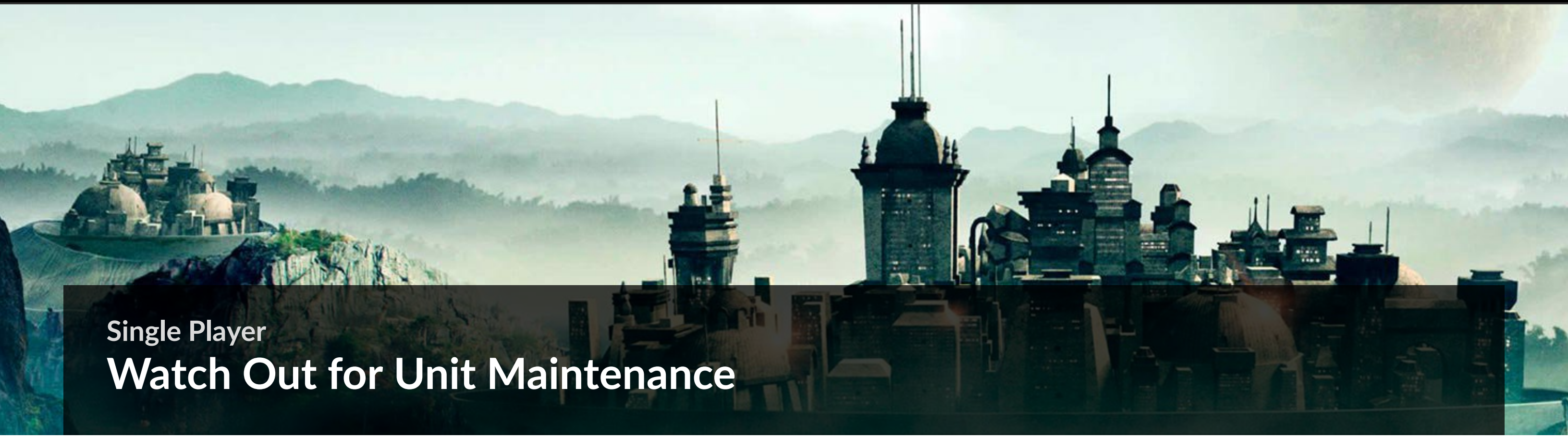
Don't be the one to start wars in the early game. Instead, wait until the computer comes to you with a request to join them in an attack on a nation that isn't far from your border. This raises your diplomatic rating with the allied nation, and it keeps you from looking as bad to the community at large. Any other friendly nations with the attacker will have a better rating because of the "friend of my friend is my friend" style of diplomacy.

During those wars, let your buddy breach the enemy borders first if possible. This means that they'll hit the hardest defenses. Once that starts happening, send your military in, and try to scoop up the maximum amount of territory. Be really pushy about getting capital cities this way, as they're often great prizes due to long periods of tile improvements and Growth.

When choosing whom to befriend, try to think about affinities. Nations with the same affinity make better friends because it's easier to stay on their good side. If you haven't gotten far enough into the game to tell your rivals' affinity, see how they've reacted to your stance on aliens, at least. Go with people who agree on your alien activities because they are also more likely to stay on your good side.



Come and share; Franco-Iberia offers warmest greetings...

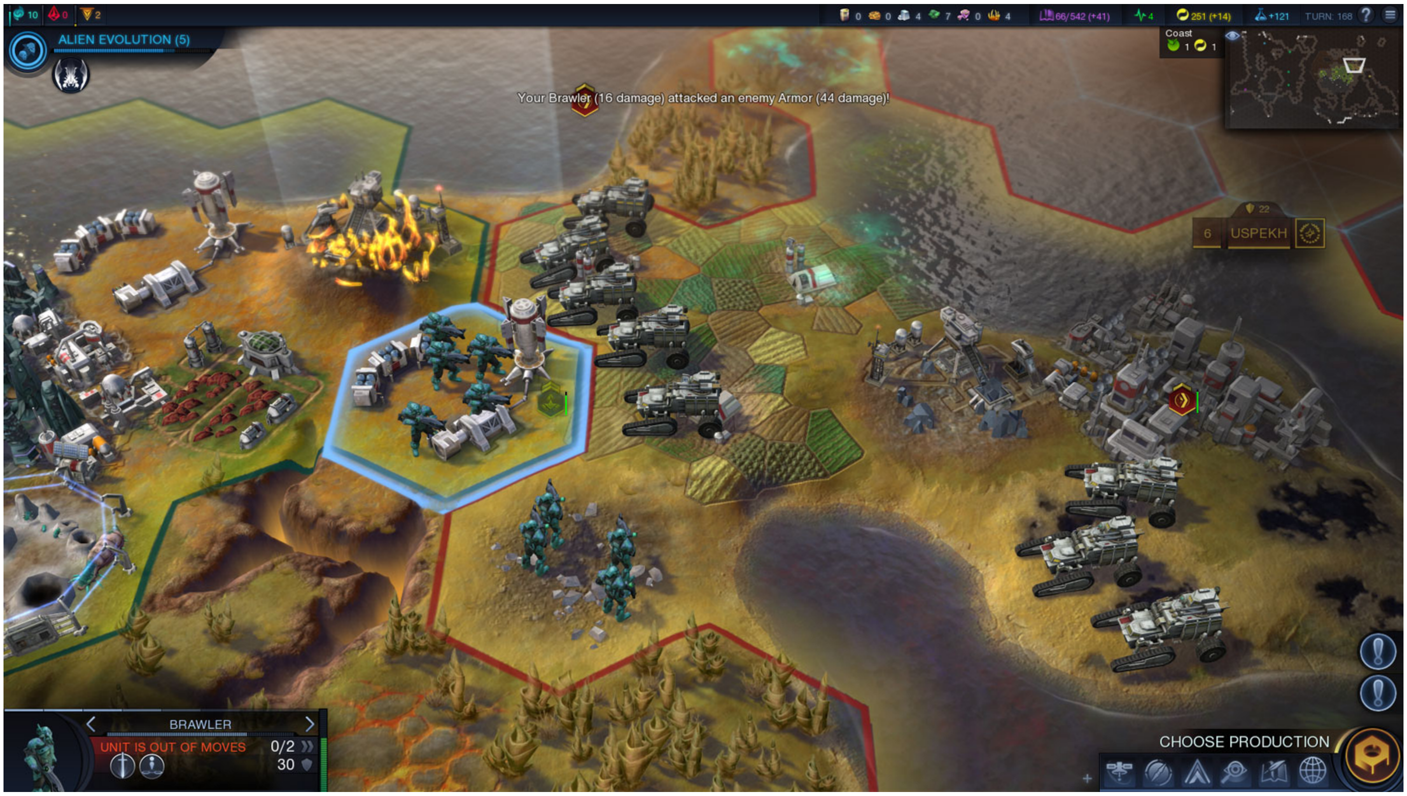


Single Player

Watch Out for Unit Maintenance

The Military Overview and your Energy reading at the top of the screen conceal the upkeep for your units. Unit maintenance is very low if you have a small standing army. Your Headquarters provides a base amount of supply, and then your cities and population add more to it. As long as your units don't demand more supply than you have, maintenance stays very low. Once you have more units than you can supply, the Energy cost of your force rises substantially.

Stay with a powerful but small defensive force when you need to save money and don't have a rugged economy to back things up. Once you start to have substantial income from trade, generators, and economic buildings, you can afford to field a larger military without gutting your economy.



Your Brawler (16 damage) attacked an enemy Armor (44 damage)!

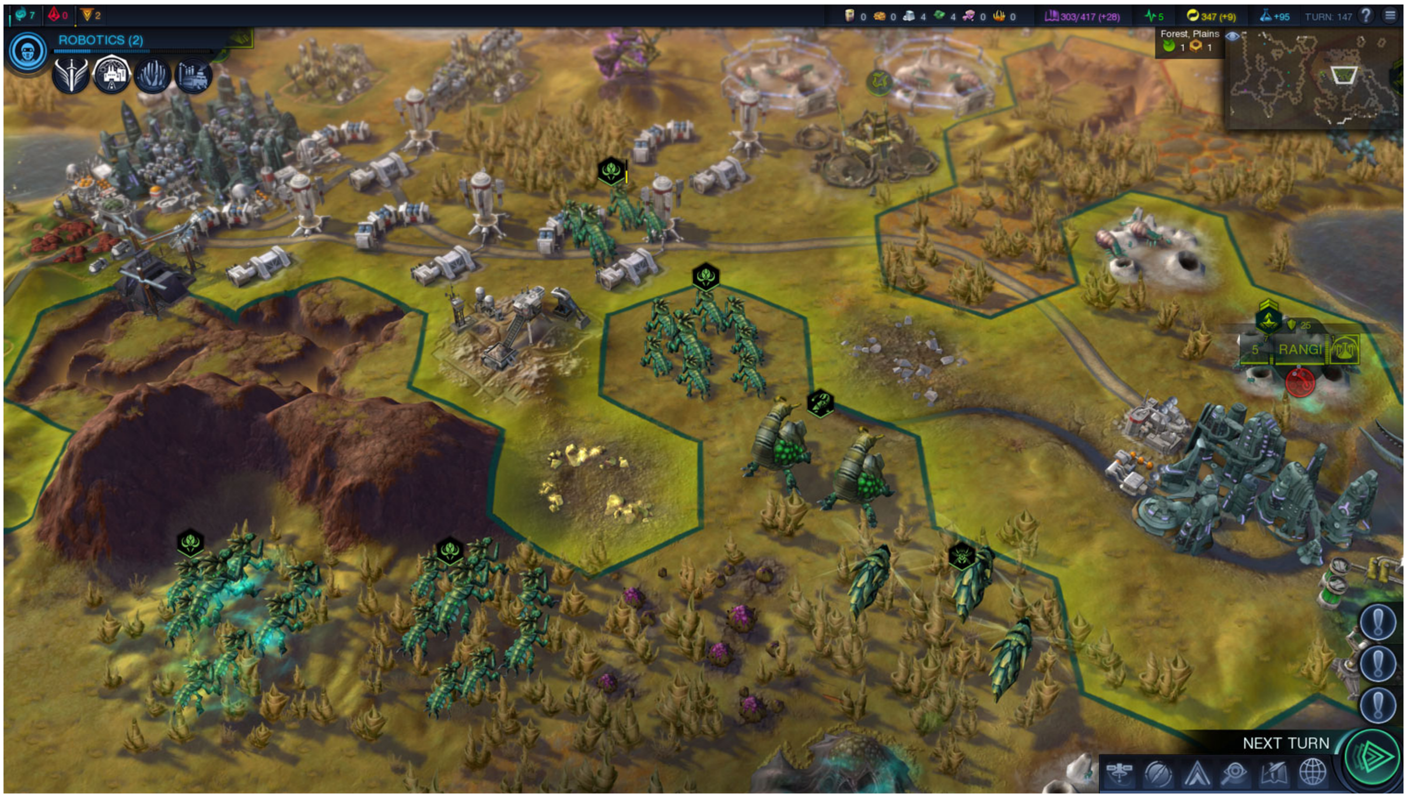
Note that you must still maintain non-military units. Explorers, workers, and even trade units count toward your supply limit. Everything has a cost, right?

Single Player

Aliens: Poking the Hornet's Nest

Alien aggression is a global affair, at least to an extent. You can tick off specific aliens by getting close to their nests, but otherwise, the level of alien aggression is something that affects all nations. If one person goes after aliens too violently, all aliens are going to respond. This can be useful to you in specific circumstances.

If you have a good military and other people are lacking in that area, you can use the aliens to do some of your dirty work. Attack the aliens until their icons turn orange (and eventually red), and watch your borders carefully. Fight off the aliens that come calling, and know that your rivals are going to have the same problems with them. Because you have a stronger military, this is less of a threat to your people and more of a threat to your opponents.



Note that you won't make friends with more than half of the nations when you do this. It's more of a warmonger's strategy than something everyone should try. Nations that are trying to live in peace with the aliens are going to get annoyed. Don't make promises not to attack the aliens, or they'll get even angrier when you keep doing it.

Now, it's unlikely that the aliens are going to kill your opponents outright. That's not the point. Instead, you're hoping to force others to defend what they have, put more Production into defense, and delay their development in other areas. If not, they'll lose outposts and scouting troops far more frequently.

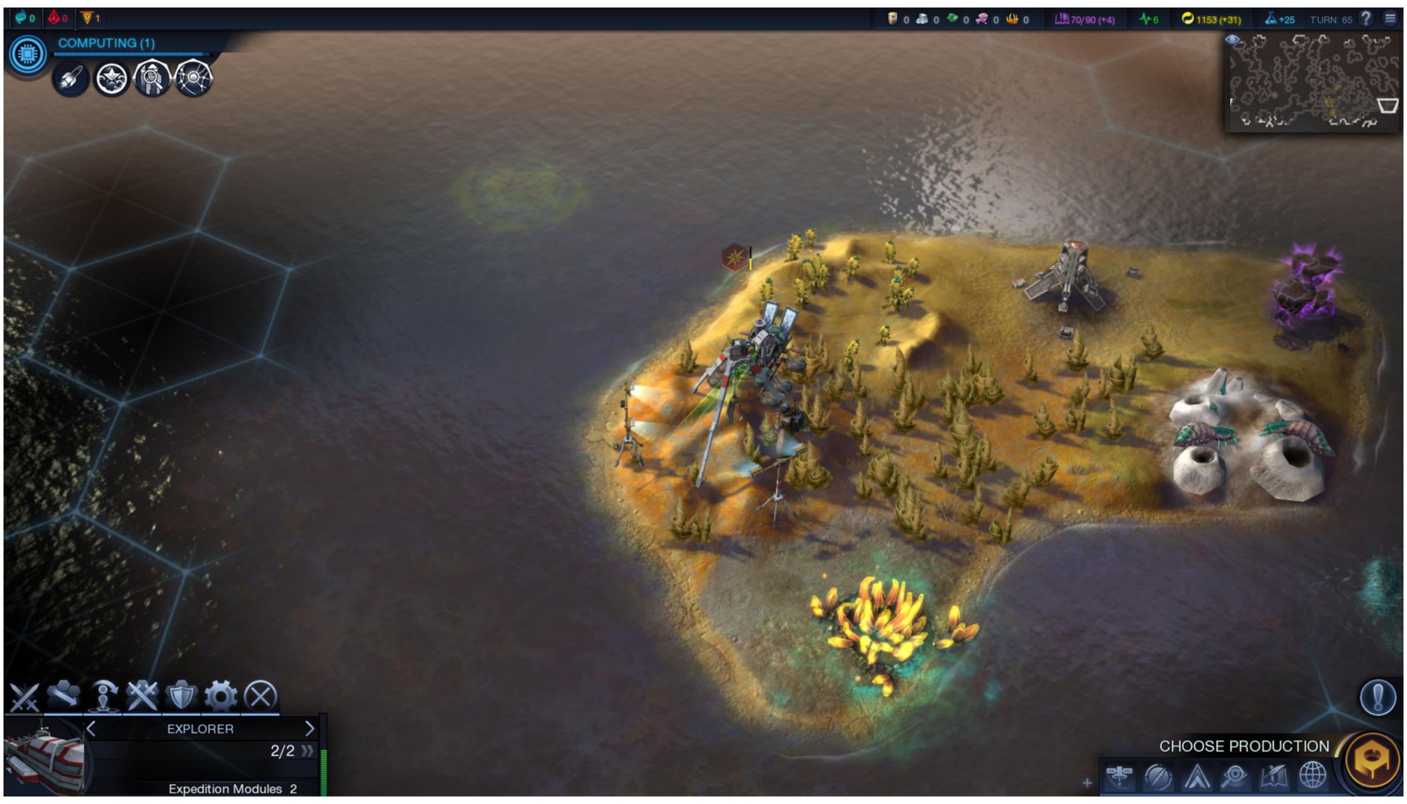
Single Player

Expeditions are Amazing

Veteran *Civilization* players might be used to going after Resource Pods because they feel like abandoned villages. You step on them and get a reward. But in this game, expeditions are the real fruit of the land. The rewards from these sites are way more than anything you're ever going to get from the Resource Pods (which primarily have Culture, Science, Energy, or a minor orbital if you're extremely lucky). Expedition sites have the potential for major Research progress, extra population, affinity Experience, quest rewards, free units, and more.

This is big stuff.

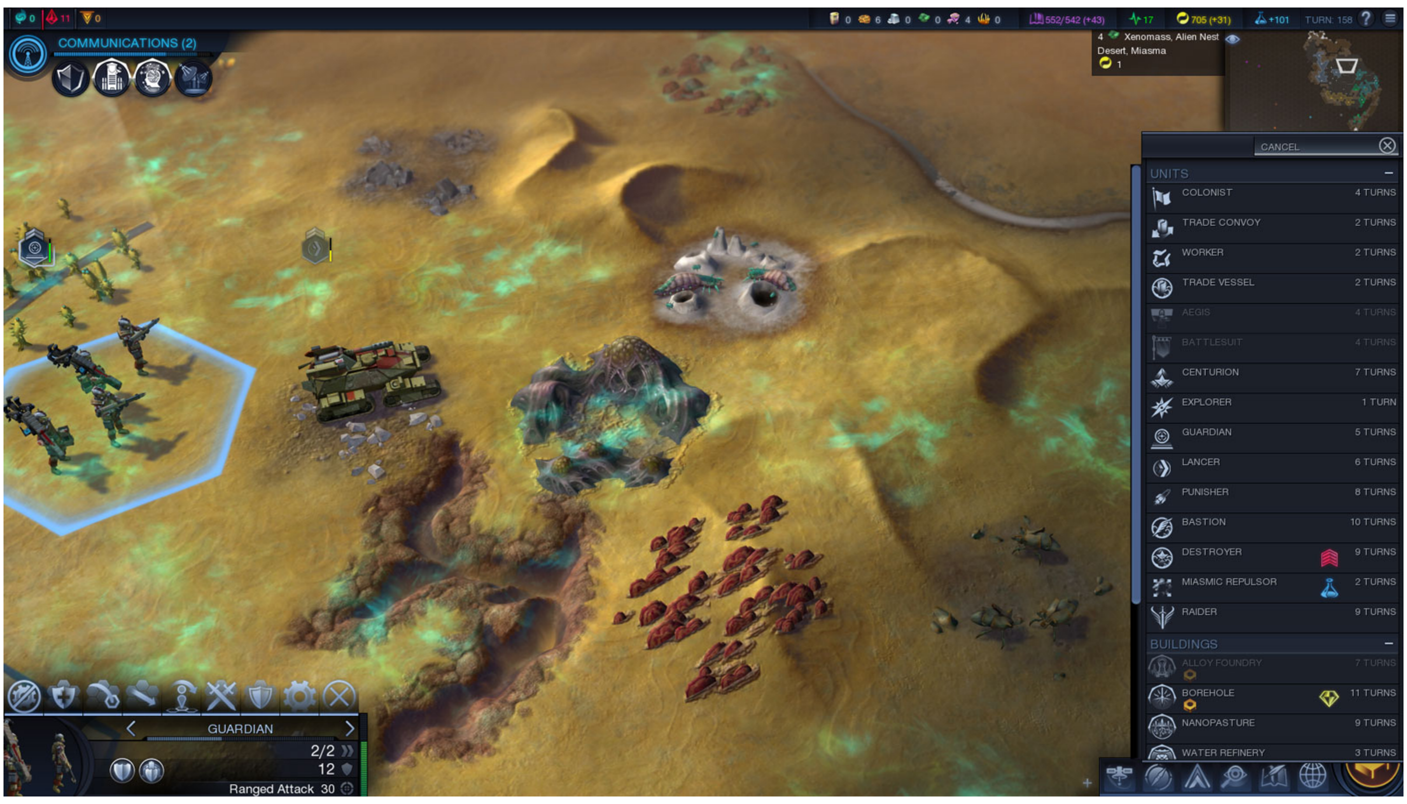
You should pursue expeditions as assertively as possible throughout the game, even taking them from territory near your neighbors if you're willing to take a minor diplomatic hit. Heck, if there is only a single site in that area, take it, and then promise to stop doing expeditions near that neighbor. Doing so actually helps your diplomatic ties with them in the long run, if you stick to your promise!



Early on, have your explorers run through the world, grabbing Resource Pods and looking for future expedition sites. Sites that you uncover outside of miasma should be grabbed immediately. Return to your city afterward to stock back up on the supplies your explorers need for additional expeditions.

Resources inside miasma are tougher. They often take 10 turns to uncover, and your explorer might die from the miasma before that happens. To counter this, look for upgrades that hasten improvement times. Helping Hands (a Prosperity virtue) is great for this. It allows explorers to get their expeditions done inside miasma without dying. They'll take tons of damage, but it's worthwhile.

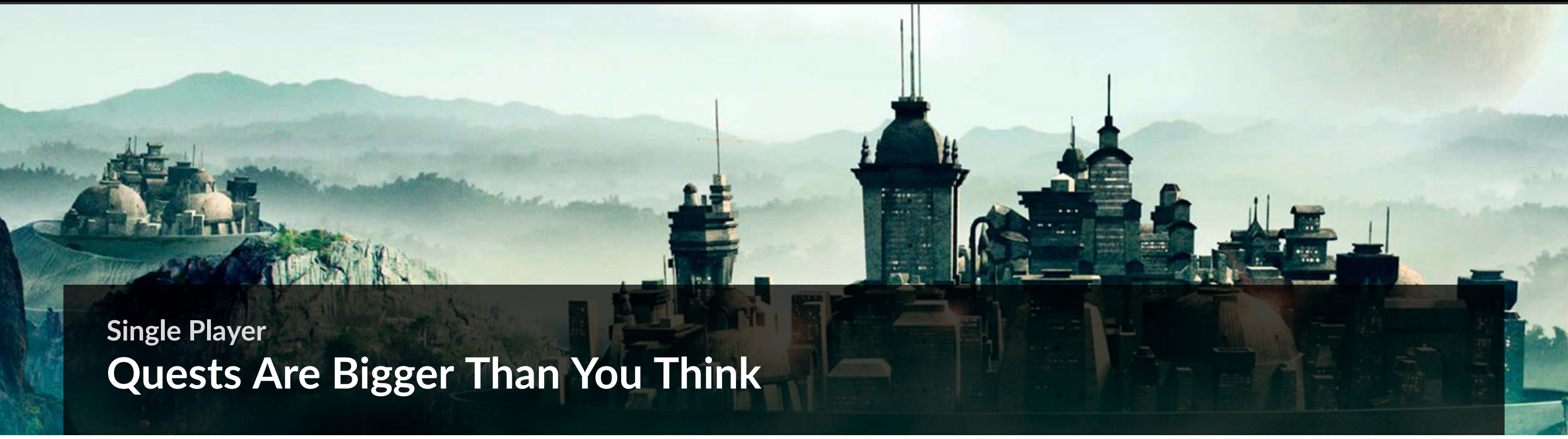
Every time a station is destroyed, an orbital falls, or an alien nest is cleared, you get additional expedition sites. Scout for these throughout the game, and don't retire your explorers. Even when there isn't anything clear to go after, have them stay inside your borders and Fortify. Wait for a glimpse of a site, and wake them up to return to duty.



UNITS	
COLONIST	4 TURNS
TRADE CONVOY	2 TURNS
WORKER	2 TURNS
TRADE VESSEL	2 TURNS
AEGIS	4 TURNS
BATTLESUIT	4 TURNS
CENTURION	7 TURNS
EXPLORER	1 TURN
GUARDIAN	5 TURNS
LANCER	6 TURNS
PUNISHER	8 TURNS
BASTION	10 TURNS
DESTROYER	9 TURNS
MIASMIC REPULSOR	2 TURNS
RAIDER	9 TURNS
BUILDINGS	
ALLOY FOUNDRY	7 TURNS
BOREHOLE	11 TURNS
NANOPASTURE	9 TURNS
WATER REFINERY	3 TURNS

As you get deeper into the game and can spare some military forces, create a Rover to accompany your explorer. Rovers can actually keep up with explorers or pass them on open ground. That makes them great escorts, with enough firepower to hold off small attacks by aliens or other nations.

In aquatic maps, you should consider quest or virtue upgrades that give explorers more expeditions per trip. This is only decent when you have roads and easy access to everything. Once you must cross oceans just to explore, it becomes fairly costly to return to a city. Having more expedition modules can mean the difference between getting one expedition or several!

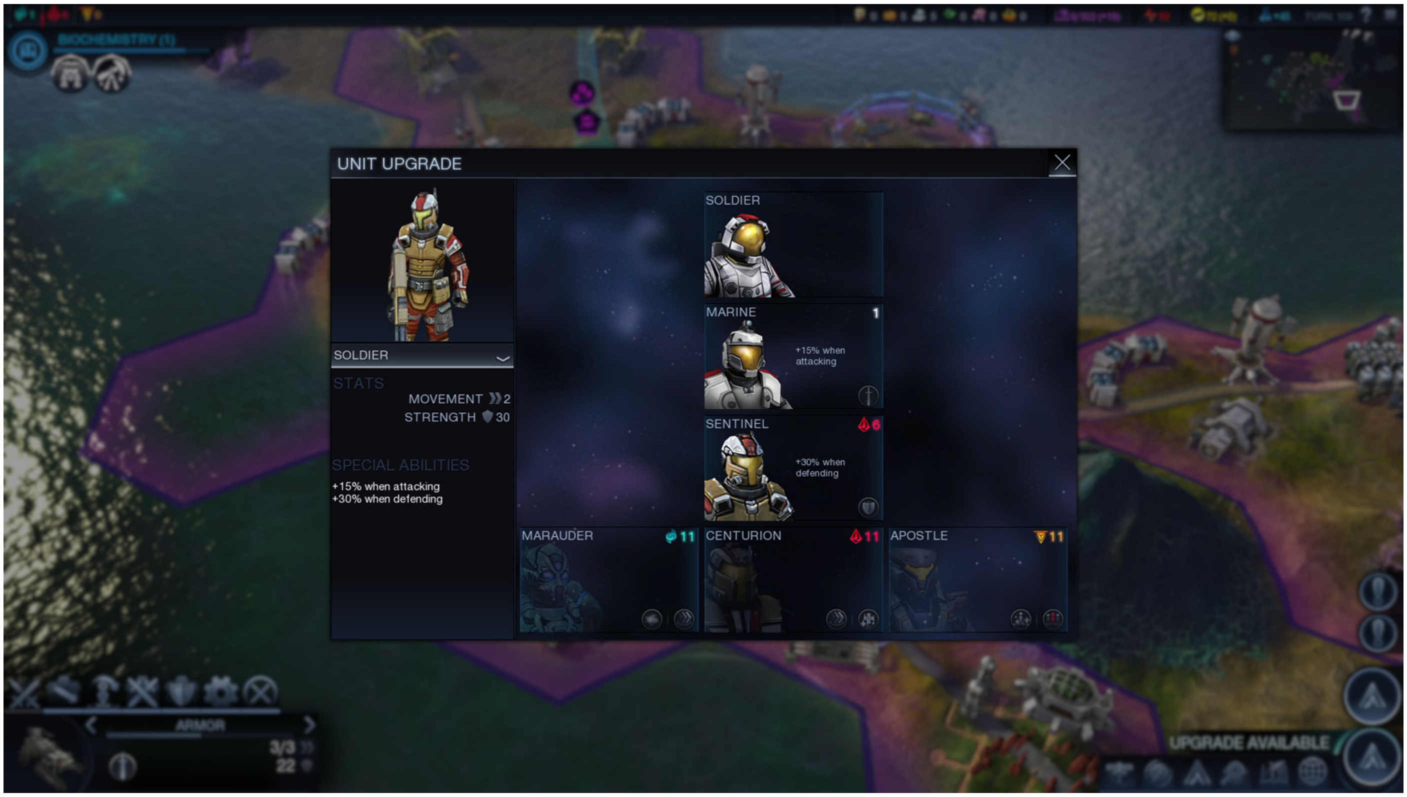


Single Player

Quests Are Bigger Than You Think

Quests aren't just there to fill out building bonuses and show you roughly what to do in the game. They are a vital way to customize your nation, but that is only the surface. Get used to the affinity quests during your first few times in the game. These are one of the strongest ways to make yourself a powerful military force without spending any major Production. Affinity quests have multiple steps and don't give their rewards out until you've accomplished everything in the chain. However, the final rewards are so major that they shift the balance of power in the world.

Always hunt aggressively to get the rewards for the Familiar Exotics, Cultural Burden, Solid State Citizen, and any of the exploration quests (for the Elemental Cave and such). These quests get you enough affinity Experience to upgrade all or most of your troops because you gain a few affinity levels at once. You won't get that from scientific Research.


UNIT UPGRADE
SOLDIER
STATS
MOVEMENT 2
STRENGTH 30
SPECIAL ABILITIES
+15% when attacking
+30% when defending
SOLDIER
MARINE 1
+15% when attacking
SENTINEL 6
+30% when defending
MARAUDER 11
CENTURION 11
APOSTLE 11
ARMOR
UPGRADE AVAILABLE

Look at your Quests and Victories screen frequently to see what you can do. A few turns to train an extra explorer and a military escort can get you way more than any single wonder or regular building ever could.

Single Player

Always Have a Backup

Don't assume that the way you're playing will take you all the way through the game. Domination players can lose their capitals, even if their military is amazing. Stuff happens. You might also take too long to finish the game with other methods, if a rival gets ahead of you in their construction or affinity Experience.

Be flexible! Spartan Kel once tried to explain the importance of this mindset, and it's a lesson that you should always remember. Don't be too stiff in your approach to a situation. Look for multiple means of success, and be ready to shift your strategy if an opportunity presents itself.

In game terms, this means that you should watch the world develop around you. If targets are weak and vulnerable, a military path is going to earn you major rewards, even if you weren't planning on pursuing Domination. On the other hand, poor terrain, good enemy alliances, and a few unlucky players might give you a horrible position for continuing an aggressive expansion. Consider alternate plans! Maybe going on the defensive and using a Promised Land approach would be easier than taking everyone else out.

ORBITAL AUTOMATION (10)
Algae
Coast, Miasma
CHOOSE PRODUCTION

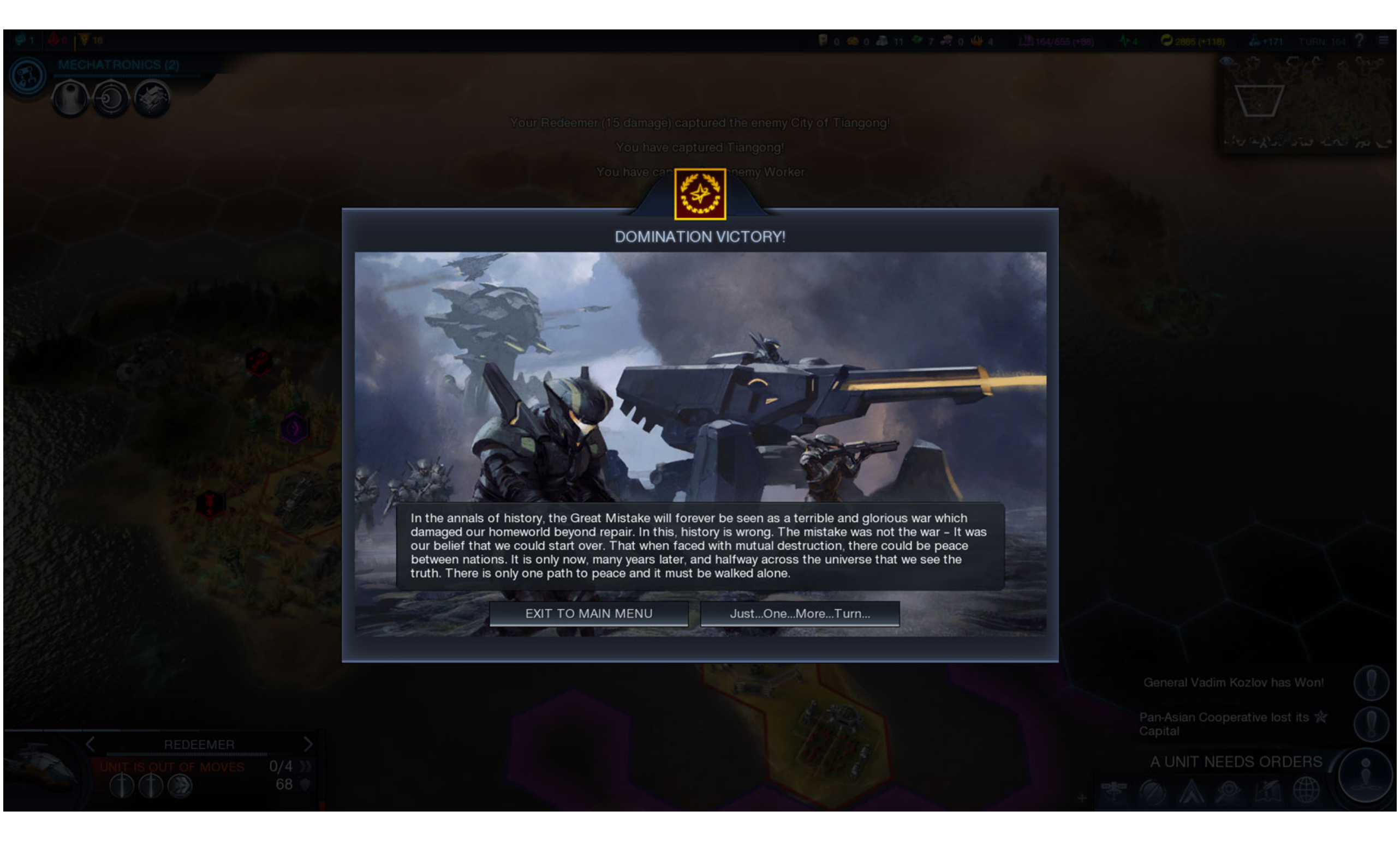
At a minimum, have two victory methods in mind as you go through each game. Domination doesn't have to be one of them, but it's a useful option in the majority of games.

THE SIX WAYS TO WIN THE GAME

You can win *Civilization: Beyond Earth* in one of six ways. Know how to do each of them so that you have alternatives.

Domination (Military Victory)

- **Goal #1**: Be the last nation that still holds their original capital city.



In the annals of history, the Great Mistake will forever be seen as a terrible and glorious war which damaged our homeworld beyond repair. In this, history is wrong. The mistake was not the war – It was our belief that we could start over. That when faced with mutual destruction, there could be peace between nations. It is only now, many years later, and halfway across the universe that we see the truth. There is only one path to peace and it must be walked alone.

This is one of the most intuitive victory methods in the game. Knock out all of the other capitals, and you win. However, there can be more to it than that. Many newcomers to the series might think that the winner has to be the one who maintains control over all of the capitals, and that's simply not the case. Rather than thinking of this as pure domination, consider it more like a game of last person standing. You don't even need to declare war or take a single city to win this way. If other nations cut each other down, you only need to be the one who survives and holds on to their own capital the longest.

Having a great military is a good way to prevent the loss of your capital, and it helps to ensure that Domination occurs before any rivals get to their own victory conditions. As such, you're better off preparing for war and attacking anyone who doesn't lose their capital without wasting too much time.

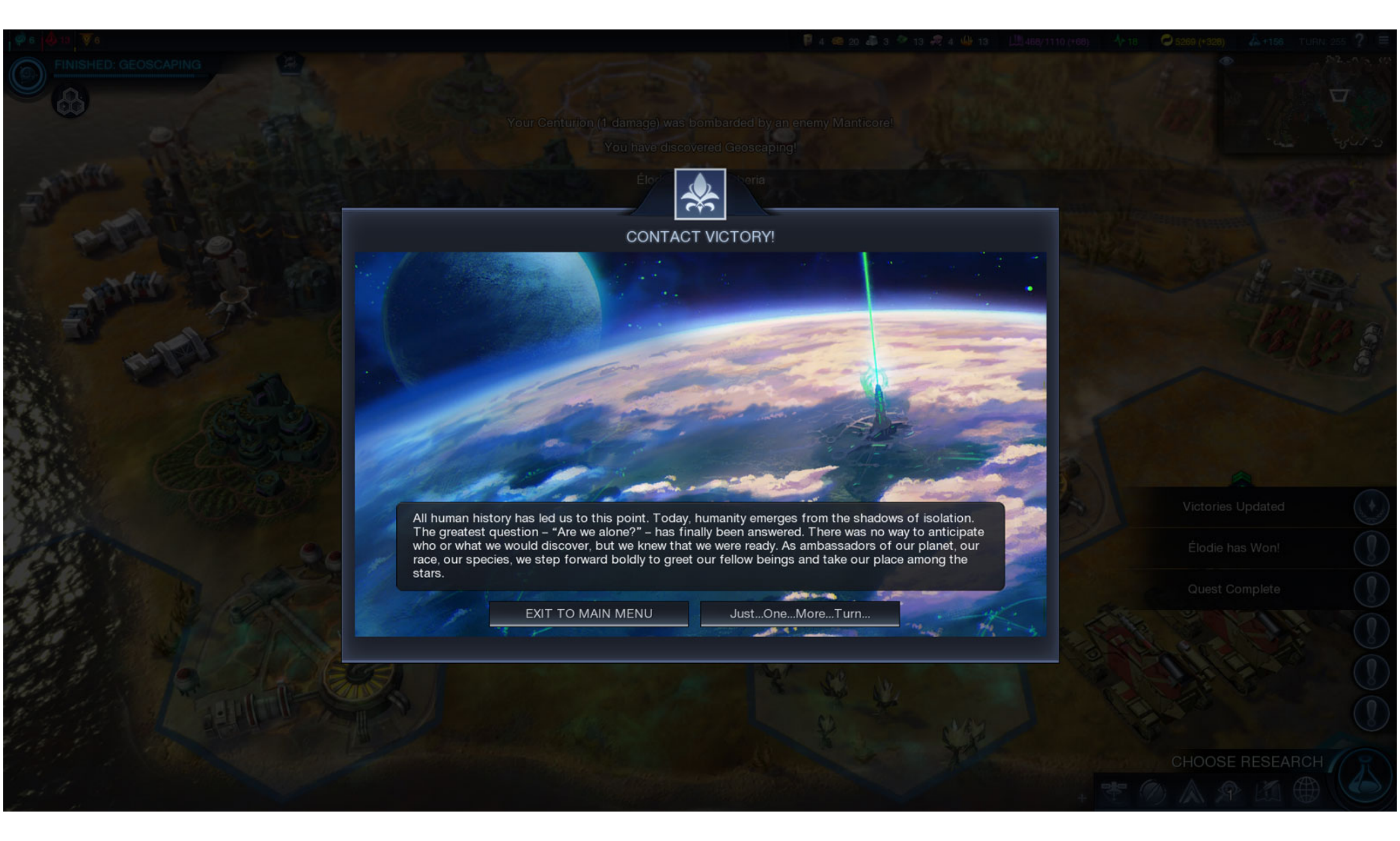
During the early or middle game, you want to conquer swaths of enemy territory. Take cities, let them grow, and your empire will become stronger over time. Toward the end of the game, you don't need to have that level of care. Instead, look at the number of people who have their original capitals, and see if you can rush in, crush their defenders, and take those cities. You don't need to hold on to them. Just crush the person's chance for Domination, and you will be that much closer to the end.

Lightning raids with fast-moving units and air support (if possible) are great for taking out capitals that have exposure to your borders, neutral territory, or the ocean. Look for a weak point so that you don't always have to defeat a person's entire military just to win the day.

Might virtues are not required for this type of victory, but they do make some of your campaigns that much easier to win.

Contact (Economic Victory)

- **Goal #1**: Discover "The Signal."
- **Goal #2**: Decode The Signal.
- **Goal #3**: Construct the Beacon.
- **Goal #4**: Activate the Beacon.
- **Goal #5**: Earn Energy to power the Beacon.



All human history has led us to this point. Today, humanity emerges from the shadows of isolation. The greatest question – "Are we alone?" – has finally been answered. There was no way to anticipate who or what we would discover, but we knew that we were ready. As ambassadors of our planet, our race, our species, we step forward boldly to greet our fellow beings and take our place among the stars.

This victory method is another one that's available to any player regardless of their affinity choices. Contact lets you make contact with an advanced alien species and begin a new level of human interactions.

The first step in this is to discover The Signal. You do this by completing the Transcendental Equation (a project that is unlocked when you research Transcendental Math, a leaf of Computing). If that isn't your preferred method, you can meet the same goal by launching a deep space telescope. This takes more time because you have to wait for the telescope to detect The Signal, and that is a random event.

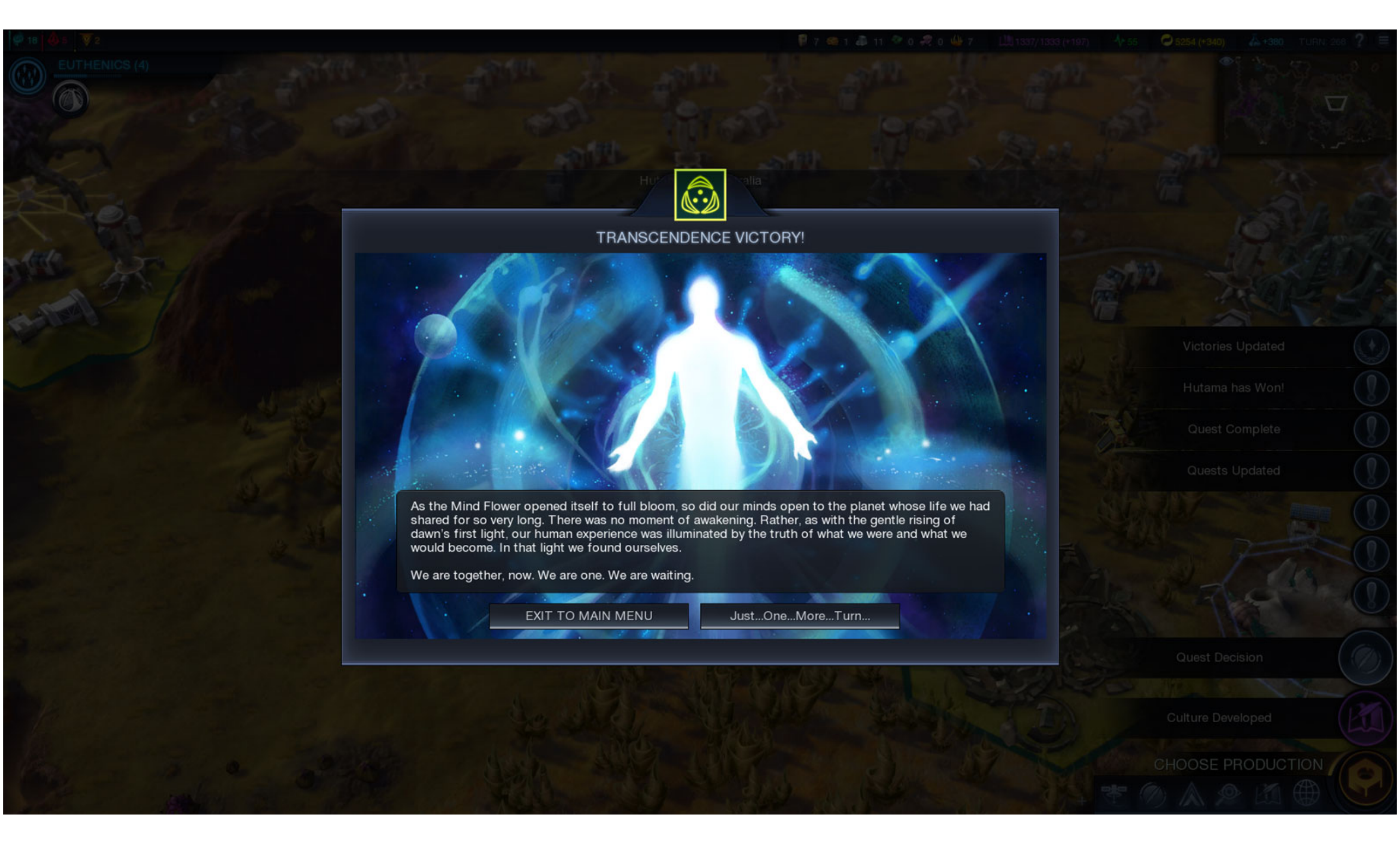
In the rarest cases, you can discover The Signal by launching expeditions in Progenitor ruins. This isn't something that you can really plan for. It might happen, but it's more of a moment of opportunity than anything else.

Once you find The Signal in any way, you have to use the Decode Signal project in one of your cities. Finish that, and then use the Beacon project to get access to the end stage of the game. With the Beacon running, your economy starts to shift. All surplus Energy goes into the Beacon, and you win if you can get enough Energy to make contact.

To help with this victory method, you must have a large nation (the more cities, the better), a thriving economy (with more generators and economic buildings), and solid trade with other nations. Prosperity and Industry virtues are both very helpful. Industry gets you the Energy and buildings you need, and Prosperity lets you maintain a larger nation without as many downsides.

Transcendence (Harmony Victory)

- **Goal #1**: Contact the planet's consciousness.
- **Goal #2**: Create the Mind Flower.
- **Goal #3**: Merge with the planet's consciousness.



As the Mind Flower opened itself to full bloom, so did our minds open to the planet whose life we had shared for so very long. There was no moment of awakening. Rather, as with the gentle rising of dawn's first light, our human experience was illuminated by the truth of what we were and what we would become. In that light we found ourselves.

We are together, now. We are one. We are waiting.

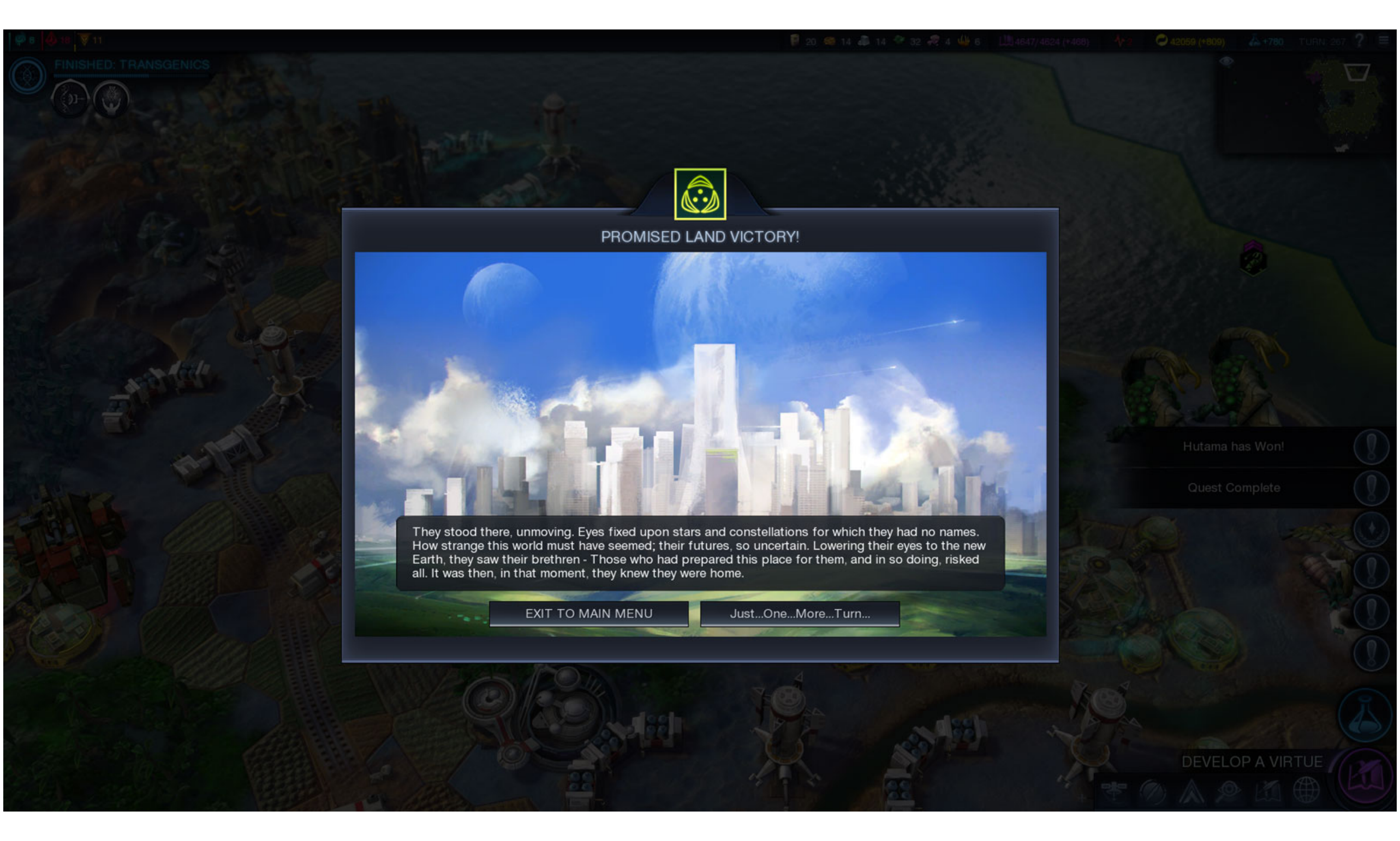
Technology lets you get your foot in the door with a Transcendence victory. You ultimately need to have at least 13 levels of Harmony and several Technologies mastered before you can begin (Nanorobotics, Transgenics, and Swarm Robotics).

With these three techs and a high Harmony affinity, you can start work on the Mind Flower. Construct that wonder in a city that is well defended. You won't want any enemies to come in and ruin your progress. Make sure to have Alien Ethics researched by the time that the Mind Flower is done because that Technology is vital to winning the game quickly.

Once the Mind Flower is ready, start to construct Xeno sanctuaries and mind stems as quickly as possible. Rush their Production whenever you can, and put these buildings into every city, regardless of that city's purpose within your nation. The sooner you get all of these buildings ready, the sooner Transcendence completes, and you win the game. This can be hurried through much sooner than the Purity and Supremacy victory methods. Enemies of Harmony players must be aware of this and react quickly to stop anyone who is close to finishing their Mind Flower.

The Promised Land (Purity Victory)

- **Goal #1**: Contact Earth.
- **Goal #2**: Construct the Exodus Gate.
- **Goal #3**: Summon Earthling settlers.
- **Goal #4**: Shelter the settlers.



They stood there, unmoving. Eyes fixed upon stars and constellations for which they had no names. How strange this world must have seemed; their futures, so uncertain. Lowering their eyes to the new Earth, they saw their brethren - Those who had prepared this place for them, and in so doing, risked all. It was then, in that moment, they knew they were home.

Launch a Lasercom Satellite as soon as you have access to these orbital units (they're researched with Orbital Networks). Once in the sky, these orbitals give you the baseline that you need to start the Exodus Gate. You must also reach Level 13 Purity affinity, so this isn't something that you can do early in the game, even if you rush to get the Technology in place.

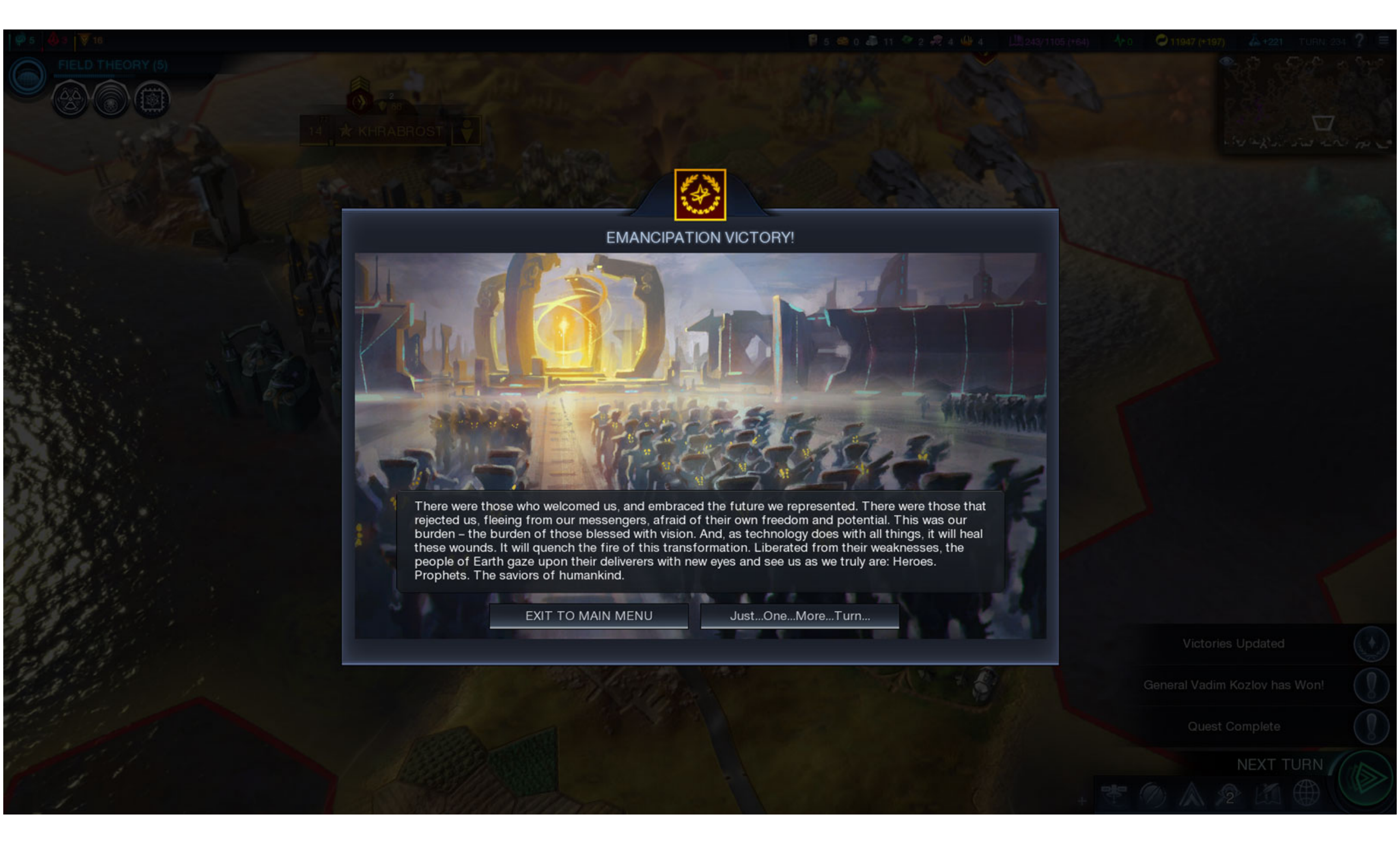
Choose a very defensive city for your Exodus Gate. You have to protect the tile that the gate is on and prevent enemies from getting anywhere near it. They'll have the ability to ruin your progress if they take control of the area, so fight with everything you have.

Once per turn, the Exodus Gate can produce an Earthling settler. Lead these settlers into safe territory, and have them settle there. Up to six settlers can use the same tile for settling; they function like an outpost, though they don't have any defenses. You must use your military power to protect them from other players, who are extremely likely to attack. Not only do they get resources for destroying your settlers, but it also keeps the game going. Even friendly nations may start attacking you at this point in the game.

If you settle enough of those cute little Earthlings, you win the game!

Emancipation (Supremacy Victory)

- **Goal #1**: Contact Earth.
- **Goal #2**: Construct the Emancipation Gate.
- **Goal #3**: Send military units to establish order on Earth.



There were those who welcomed us, and embraced the future we represented. There were those that rejected us, fleeing from our messengers, afraid of their own freedom and potential. This was our burden – the burden of those blessed with vision. And, as technology does with all things, it will heal these wounds. It will quench the fire of this transformation. Liberated from their weaknesses, the people of Earth gaze upon their deliverers with new eyes and see us as we truly are: Heroes. Prophets. The saviors of humankind.

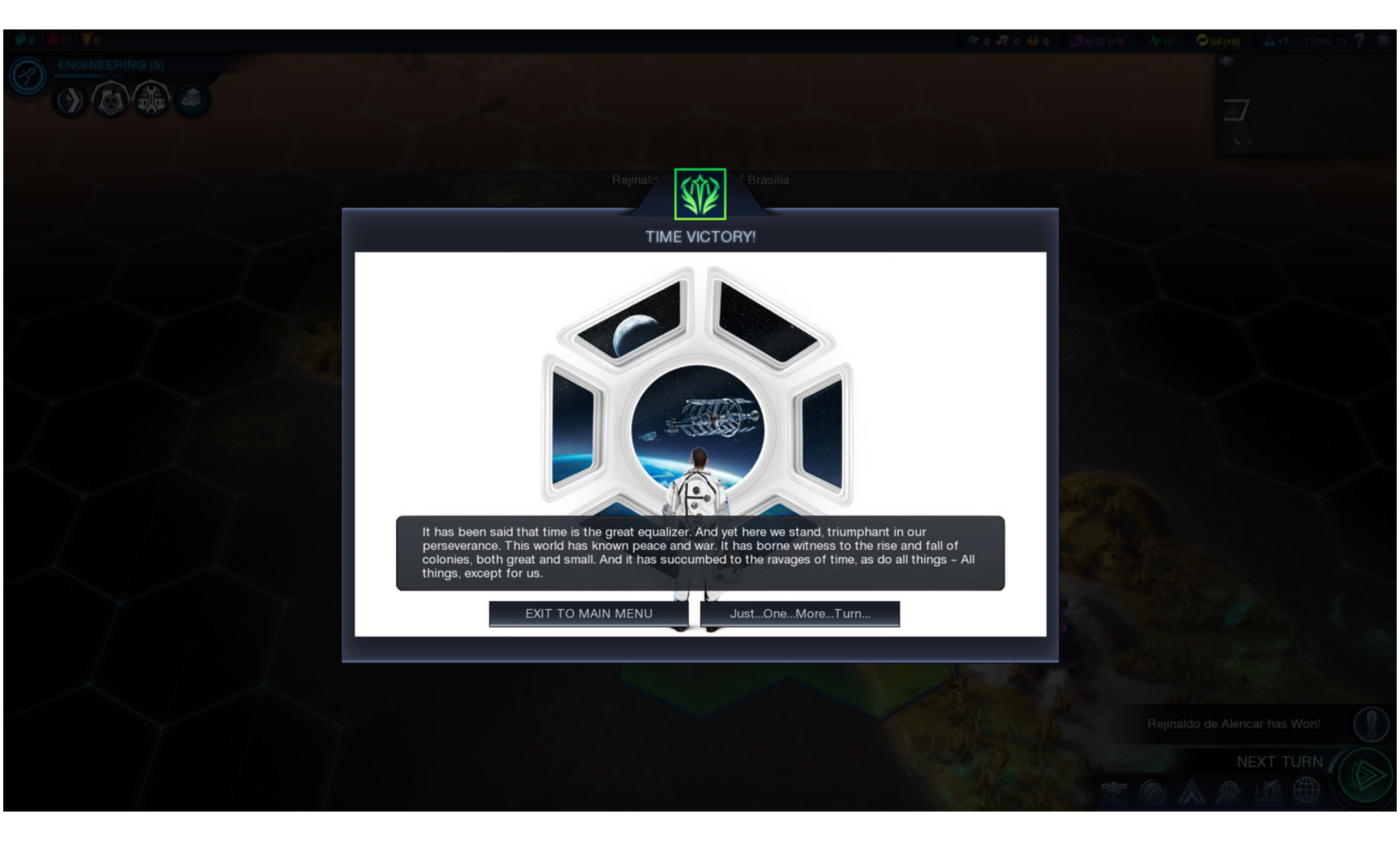
Emancipation begins in the same manner as the Promised Land victory. Launch a Lasercom Satellite after you research Orbital Networks. This lets you contact Earth and begin the next stage of the task. Get 13 levels or more of Supremacy Experience, and then construct an Exodus Gate in a very defensive location near your strongest city.

Once complete, the Exodus Gate can transport one military unit per turn back to Old Earth. You need a set amount of Combat Strength to head through the gate, so the strongest melee unit you can find each turn is going to have to head through. If you have massive Production, prioritize Strength over everything else. If you have trouble keeping up with demand and are missing turns, then prioritize the cheapest units so that you at least have something to send through the gate every turn.

It takes a fair number of turns to get enough units through the gate to win. Watch your borders, and don't abandon your defenses just to keep the gate loaded with troops. You need Production, units, and safety to keep this effort going. It's okay to lose some territory on the periphery, but don't give up your empire. It's too easy for enemies to get an opening after that, and if you lose the gate, you've just lost the game entirely because your nation will be set so far back.

Highest Score (End Of Game Victory)

- **Goal #1**: Have the highest score at the end of the game.



It has been said that time is the great equalizer. And yet here we stand, triumphant in our perseverance. This world has known peace and war. It has borne witness to the rise and fall of colonies, both great and small. And it has succumbed to the ravages of time, as do all things – All things, except for us.

If you run out of turns (at Turn 500 in a standard pacing), the game ends, and everyone's score is tallied. The winner of these long games is the nation that has the highest score when this occurs. It's hard to try to win by this method because so many of the ways to get more points put you in a position that allows you to win sooner by other means.

That said, here are ways to improve your score. It's nice to have a higher score anyway because that usually reflects on something powerful and useful to your nation in the first place. Also, this goes toward calculating the final score that you're given for the Hall of Fame (though that is also quite dependent on the number of turns you take to achieve victory).

Items That Control Your Score

- Number of tiles inside your borders
- Higher population
- Number of techs researched
- Wonders constructed
- Virtues unlocked
- The sum of all affinity levels
- Military Strength
- Total number of covert agents
- Total Science accrued
- Total Culture accrued

If you go into the Diplomacy screen and highlight your nation's score there, you get a full breakdown of those points. This is useful for seeing where you frequently do well; it also gives you an idea for areas that you can improve on in the future.

Multiplayer

Flexibility in Your Strategies

Many of the ideas that help you excel at single-player games are also going to help you during multiplayer games. However, when you're playing against real people, you must watch out for additional things. Human opponents have the ability to adapt to your clever tricks, making it possible for good plans to become big errors.

This chapter will discuss some of the common problems and possibilities when you take on other *Civilization* players.

USE FLEXIBILITY IN YOUR STRATEGIES

Flexibility was mentioned in the single-player chapter, but it's even more important to stress here. Fixed methods of growth and defense are going to get you in trouble when you're facing human players. During a game, that can come back to bite you. Across multiple games, if you play with the same people, it's really going to get you in trouble. People watch their games and think about what's going right and wrong. This is even true of mediocre players. Even when they're just playing quickly and hurrying through turns, part of their head is in the mechanics of the game. When something doesn't work, it upsets them, and they'll try to fix it in the future.

Let's see how to mix up good playstyles.

<< Excerpts from Colony Archives >>
<< Personal Log, Hutama >>

[[CED.1745.68]]

This expedition is an opportunity to start over. One for which Polystralia is well-prepared. We have always been economically superior. We know how to forge lucrative relationships. Although I am concerned about the beings we may encounter, I remain hopeful. Though we may be outnumbered by savage beasts, we will find some intelligence with which to ally ourselves.

CHANGE YOUR MILITARY GOALS BASED ON RIVALS' ACTIONS

Don't always use the same unit upgrades and groups of attackers. If you're always raiding with bands of rovers, your opponents aren't going to leave their flanks and peripheral cities undefended for long. Instead of single gunners, they'll start putting a couple of melee units, an orbital, and a ranged unit near every vulnerable point in their borders. It's going to be impossible for a small raiding party to deal with that, so don't try.

Avoid mindlessly charging against a player who is turtling their borders like that. If they are creating a defensive military that large, let them! They're devoting serious time to their defense, and that time and Production could have been going toward infrastructure, wonders, and other long-term goals.

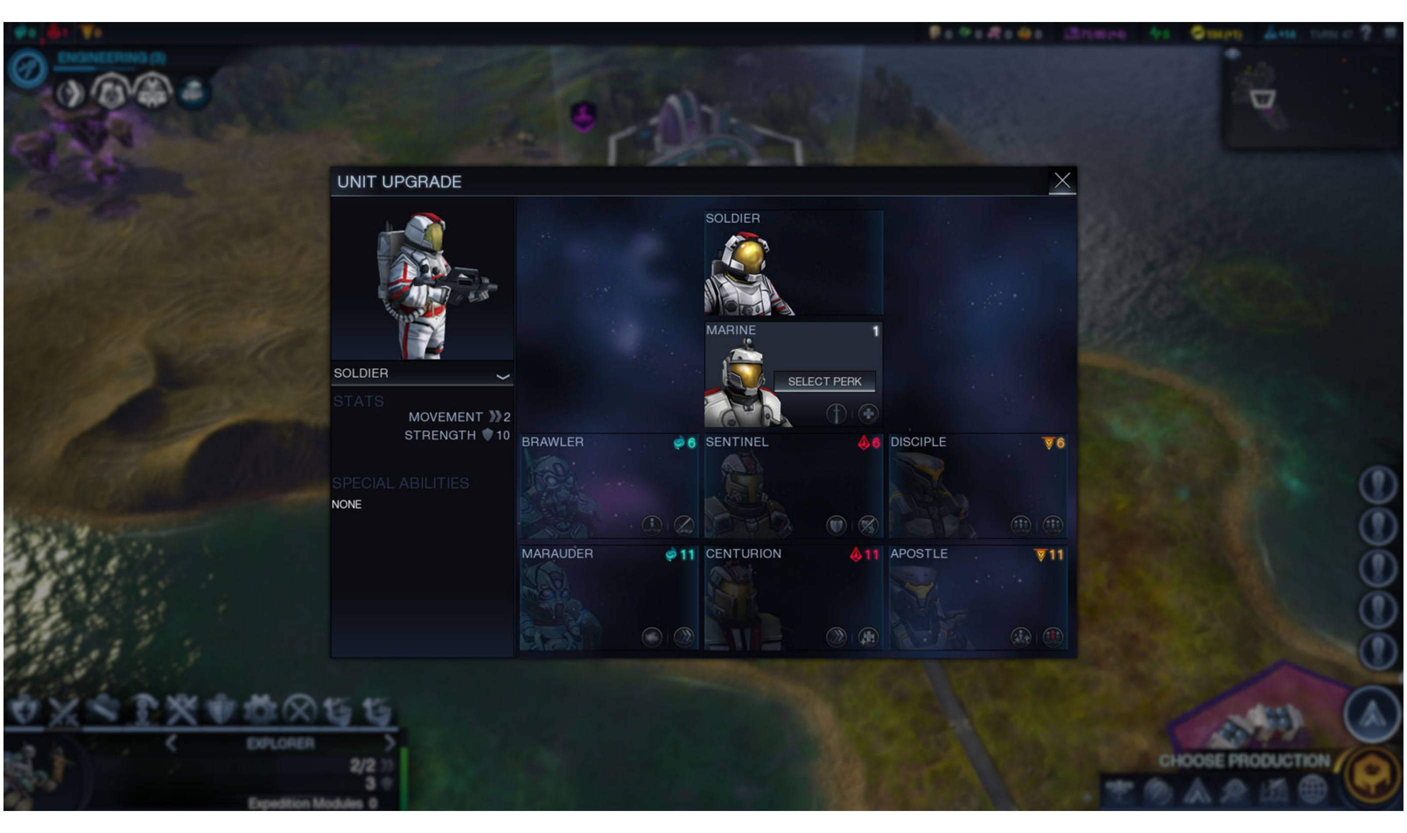
Change tactics when your opponent changes theirs. Be aggressive against players who are overdeveloping (too many cities, few units, multiple wonders popping out). Use defensive forces to punish militarists who come at you for fast kills and easy territory. Deploy defensive orbitals, fortify cheaper melee units in front of your cities, and keep the war going steadily for as long as you can. Longer wars often favor the defender.

PLANETARY ENGINEERING (5)
TURN: 188
4 Petroleum
Desert
USPEKH
Processing Turn For Aliens
Tile owned by Slavic Federation
Resource: 4 Petroleum
Terrain: Desert
Output: 1
PLEASE WAIT

SPECIALIZED UNITS

One powerful trick is to differentiate your units as strongly as possible. Make one melee unit a good attacker, but give totally defensive bonuses to another type of unit. Only use your defenders on internal operations, and let your attackers go off to campaign. This specialization of your military is great for keeping your opponent off guard. They're always going to be facing something with good bonuses for the task at hand, so they'll need different tactics when fighting you offensively and defensively.

You've already learned to avoid doing the same thing every time, so try not to specialize your military the exact same way each game. That way, you force yourself to develop new methods of specialization. You won't always have many exploitable weaknesses when playing against the same people in the future because they'll have to wait and see what you're doing each time rather than assuming that you are playing the same way as you did the game before.

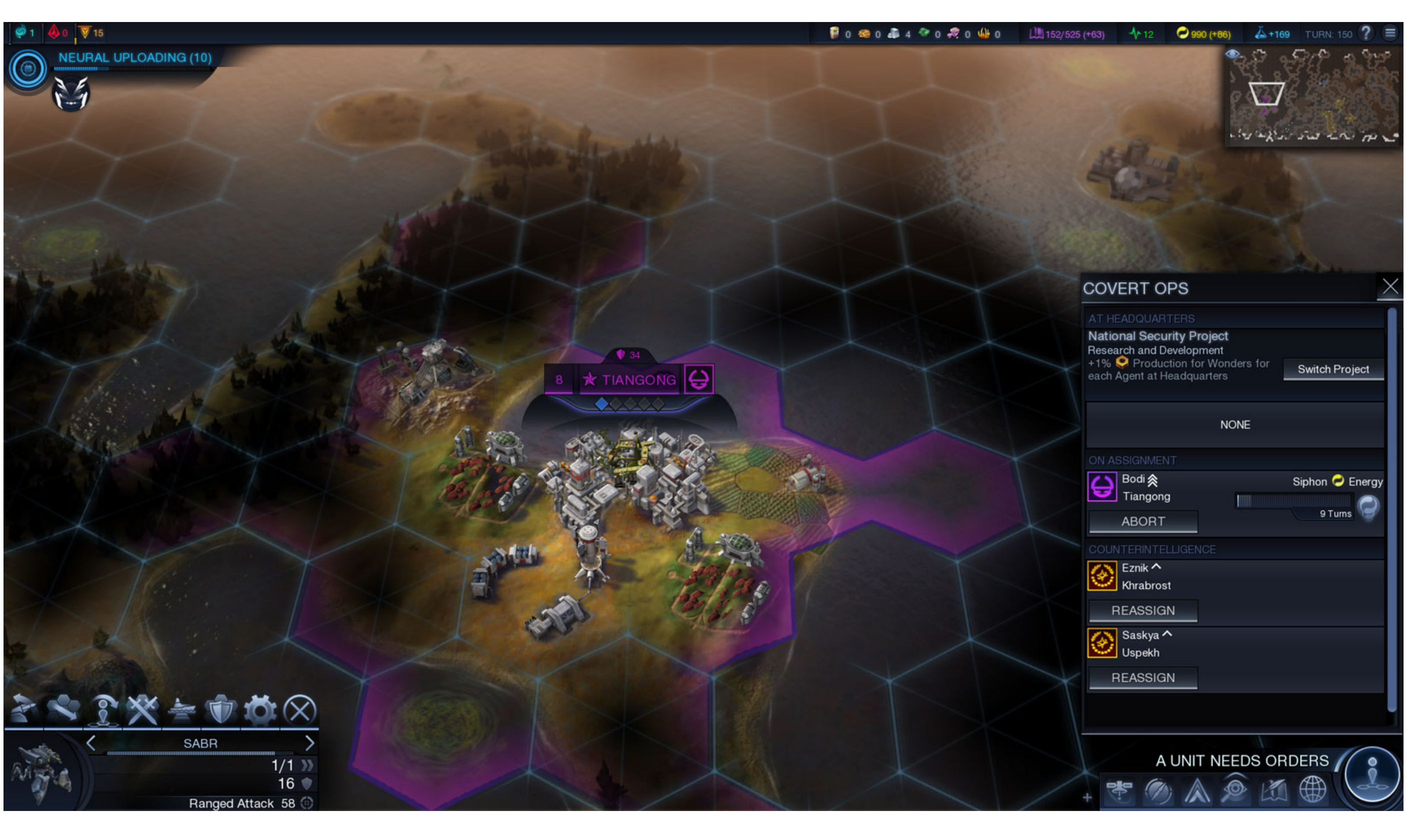

UNIT UPGRADE
SOLDIER
STATS
MOVEMENT 2
STRENGTH 10
SPECIAL ABILITIES
NONE
SOLDIER
MARINE
SELECT PERK
BRAWLER 6
SENTINEL 6
DISCIPLE 6
MARAUDER 11
CENTURION 11
APOSTLE 11
EXPLORER
CHOOSE PRODUCTION

CONSTANTLY USE YOUR SPIES

The computer lets you scout way too aggressively. Your people can watch the borders of most nations quite frequently as long as you don't stick around or bring too many buddies. Moving along the border and then quickly darting away doesn't get much attention.

That isn't the case with humans. They'll recognize that you're sizing them up, and then they'll prepare additional defenders. Use that against them sometimes by pretending to get an attack ready. They'll assume that you're scouting with purpose and waste time moving people around or training new units that aren't required.

When you really do want information about the layout of an area, use spies instead of military units. Spies are far more effective scouts because their networks give you tons of information about the layout of a region, the things that are being built there, and so forth. Even your best military units can't scout that well! Also, your enemy isn't likely to know what's going on if you only use low-difficulty covert operations.


NEURAL UPLOADING (10)
TURN: 150
TIANGONG
COVERT OPS
AT HEADQUARTERS
National Security Project
Research and Development
+1% Production for Wonders for each Agent at Headquarters
Switch Project
NONE
ON ASSIGNMENT
Bodi
Tiangong
Siphon Energy
9 Turns
ABORT
COUNTERINTELLIGENCE
Eznik
Khrabrost
REASSIGN
Saskya
Uspekh
REASSIGN
SABR
Ranged Attack 58
A UNIT NEEDS ORDERS

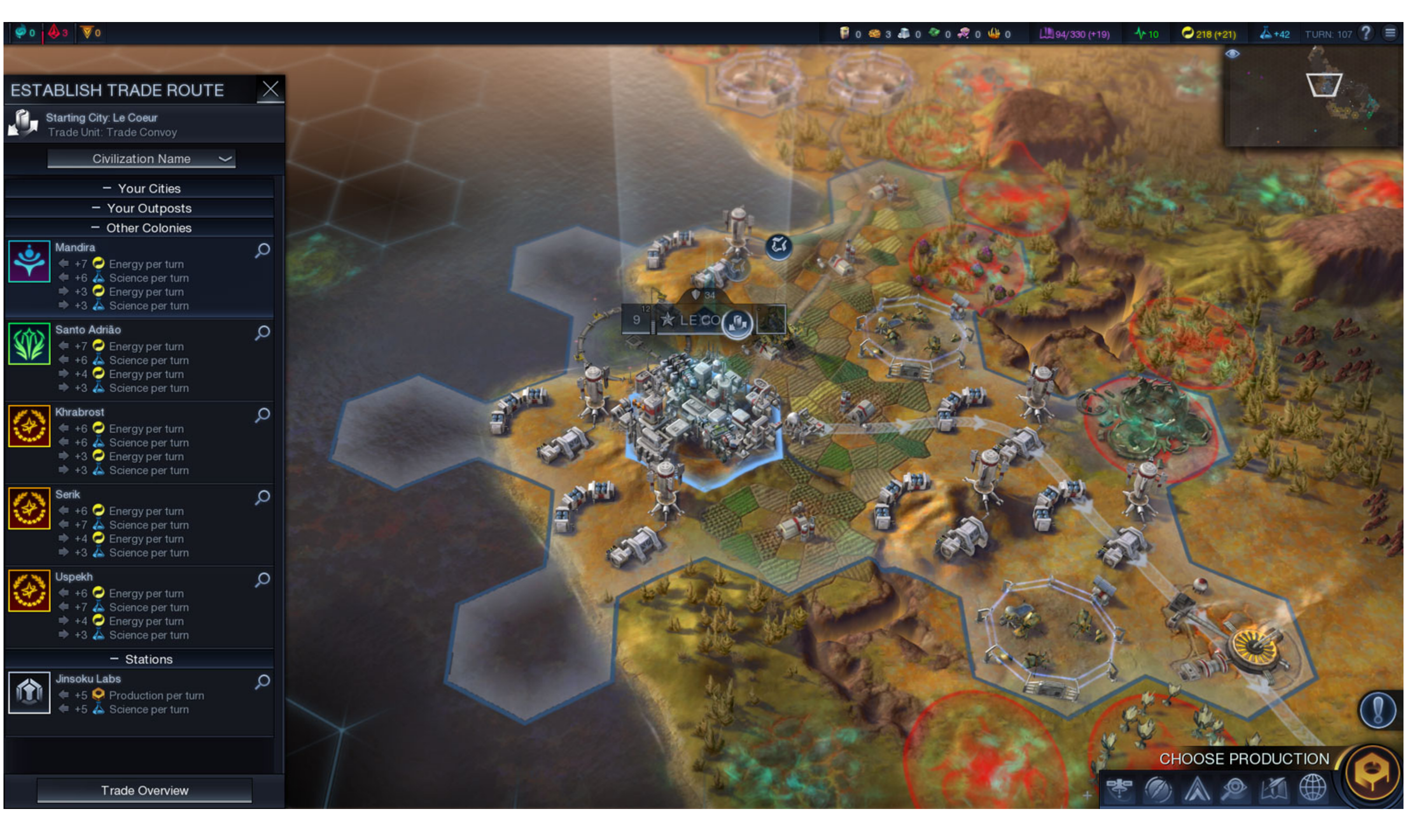
Use multiple spies throughout a given enemy nation so that you can see even more of their terrain, unit movements, etc. This has the added advantage of avoiding trouble with more than one person if you get caught.

Watch players' cities to see when their forces are deployed in a way that isn't defensive. Are they rushing toward a different border to deflect someone else's attacks? Maybe it's a good time to strike. Friendships are nothing if not ephemeral during multiplayer matches.

TRADE WITH MULTIPLE NATIONS

Players aren't immune to the positive effects of trade, as well. People like getting free resources without even lifting a finger. If you trade with multiple players, you're slightly less likely to be attacked, all things being equal.

Your job is to make sure that things remain equal! Keep your forces as strong as possible to ensure that you aren't a soft target. No one is going to care about trade if you're so soft that they can take out your nation without major losses. Instead, you need to be tough and profitable.


ESTABLISH TRADE ROUTE
Starting City: Le Coeur
Trade Unit: Trade Convoy
Civilization Name
Your Cities
Your Outposts
Other Colonies
Mandira
+7 Energy per turn
+6 Science per turn
+3 Energy per turn
+3 Science per turn
Santo Adrião
+7 Energy per turn
+6 Science per turn
+4 Energy per turn
+3 Science per turn
Khrabrost
+6 Energy per turn
+6 Science per turn
+3 Energy per turn
+3 Science per turn
Serik
+6 Energy per turn
+7 Science per turn
+4 Energy per turn
+3 Science per turn
Uspekh
+6 Energy per turn
+7 Science per turn
+4 Energy per turn
+3 Science per turn
Stations
Jinsoku Labs
+5 Production per turn
+5 Science per turn
Trade Overview
TURN: 107
CHOOSE PRODUCTION

This becomes less useful in the late game. Once people are close to victory, no one cares about a few resources. Victory is in the balance, and you can't trust any friendship that you aren't able to back up with violence.

Encourage everyone you trade with to sign cooperation agreements; these raise trade benefits without having any cost or downside.

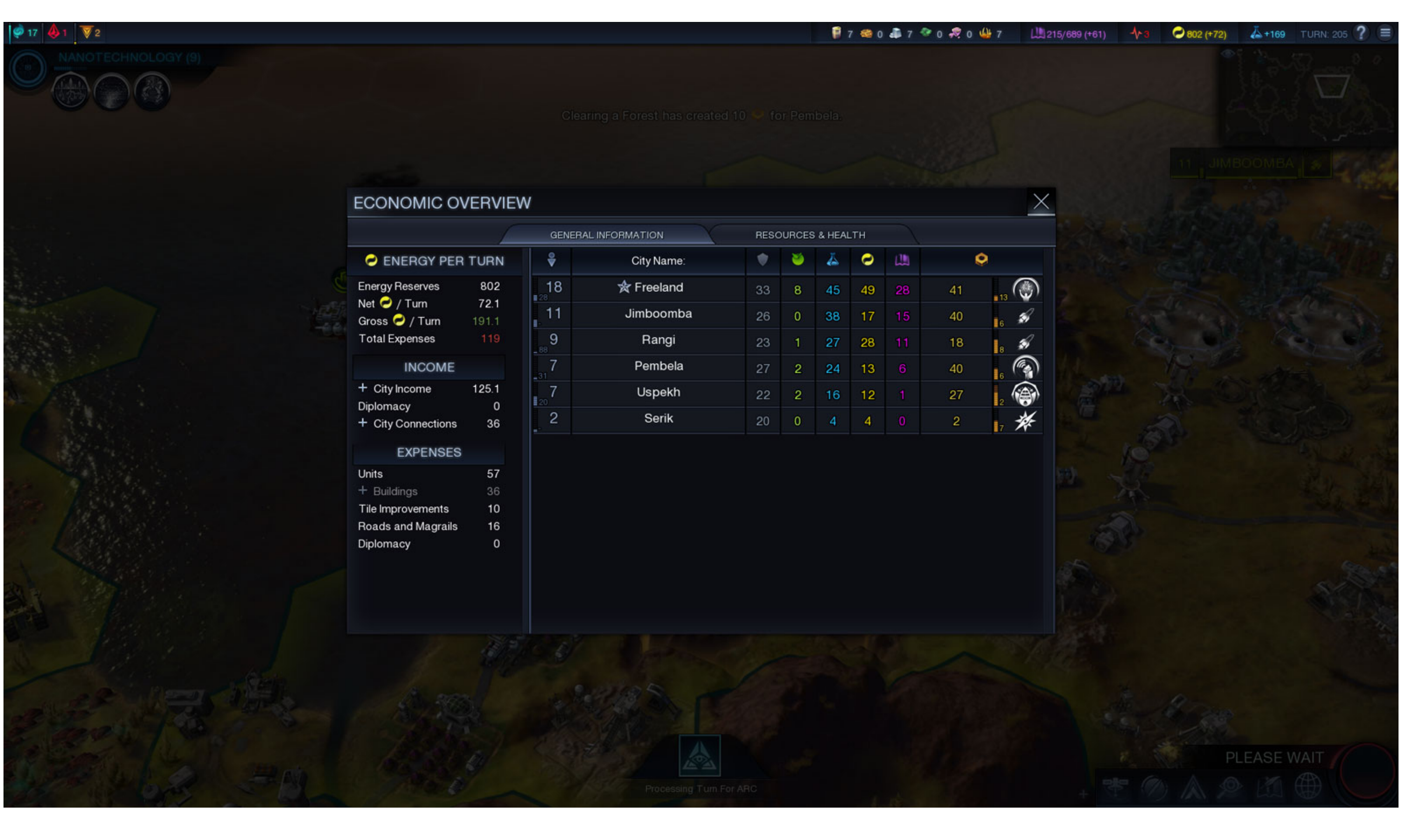
Bolster Your Enemies' Enemies

If someone is getting too powerful elsewhere in the world and you're not close enough to cut them down, then start helping their enemies. Trade them strategic resources that they need. Send trade routes their way. Do what you can to aid their survival without putting yourself on the chopping block.

MONEY IS STILL THE BEST COUNTER

Energy is a powerful tool, and that's doubly true in multiplayer matches. The ability to quickly summon troops or defensive buildings is incredible when you're dealing with the dynamic nature of human players. AI games are easier because you get a strong feeling for the flow of warfare; it's easy to see things coming. Because you can't predict humans as well, you must have Energy on hand to slow down sudden onslaughts. Buy a defensive perimeter and an extra melee unit to protect a city that's suddenly in danger. That might get you enough time to bring forces over there using your awesome road network.

Don't use money just to develop young cities. That's a great method in single-player games, and it still has its place in multiplayer games, too. However, be aware that a rainy day fund of 1,000 Energy credits can often be the difference between losing a city during a raid or fending off an attack force and having a chance to strike back.

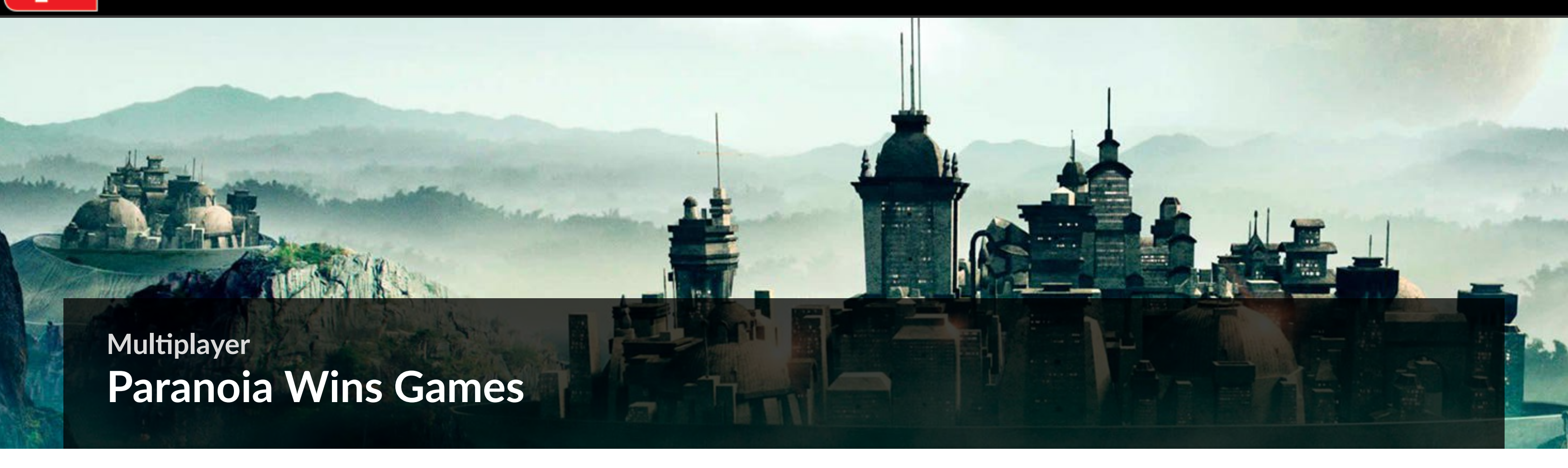

NANOTECHNOLOGY (9)
TURN: 205
Clearing a Forest has created 10 for Pembela.
JIMBOOMBA
ECONOMIC OVERVIEW
GENERAL INFORMATION
RESOURCES & HEALTH
Processing Turn For ARC
PLEASE WAIT

ENERGY PER TURN
Energy Reserves 802
Net / Turn 72.1
Gross / Turn 191.1
Total Expenses 119

INCOME
+ City Income 125.1
Diplomacy 0
+ City Connections 36

EXPENSES
Units 57
+ Buildings 36
Tile Improvements 10
Roads and Magrails 16
Diplomacy 0

	City Name:						
18	★ Freeland	33	8	45	49	28	41
11	Jimboomba	26	0	38	17	15	40
9	Rangi	23	1	27	28	11	18
7	Pembela	27	2	24	13	6	40
7	Uspekh	22	2	16	12	1	27
2	Serik	20	0	4	4	0	2



Multiplayer

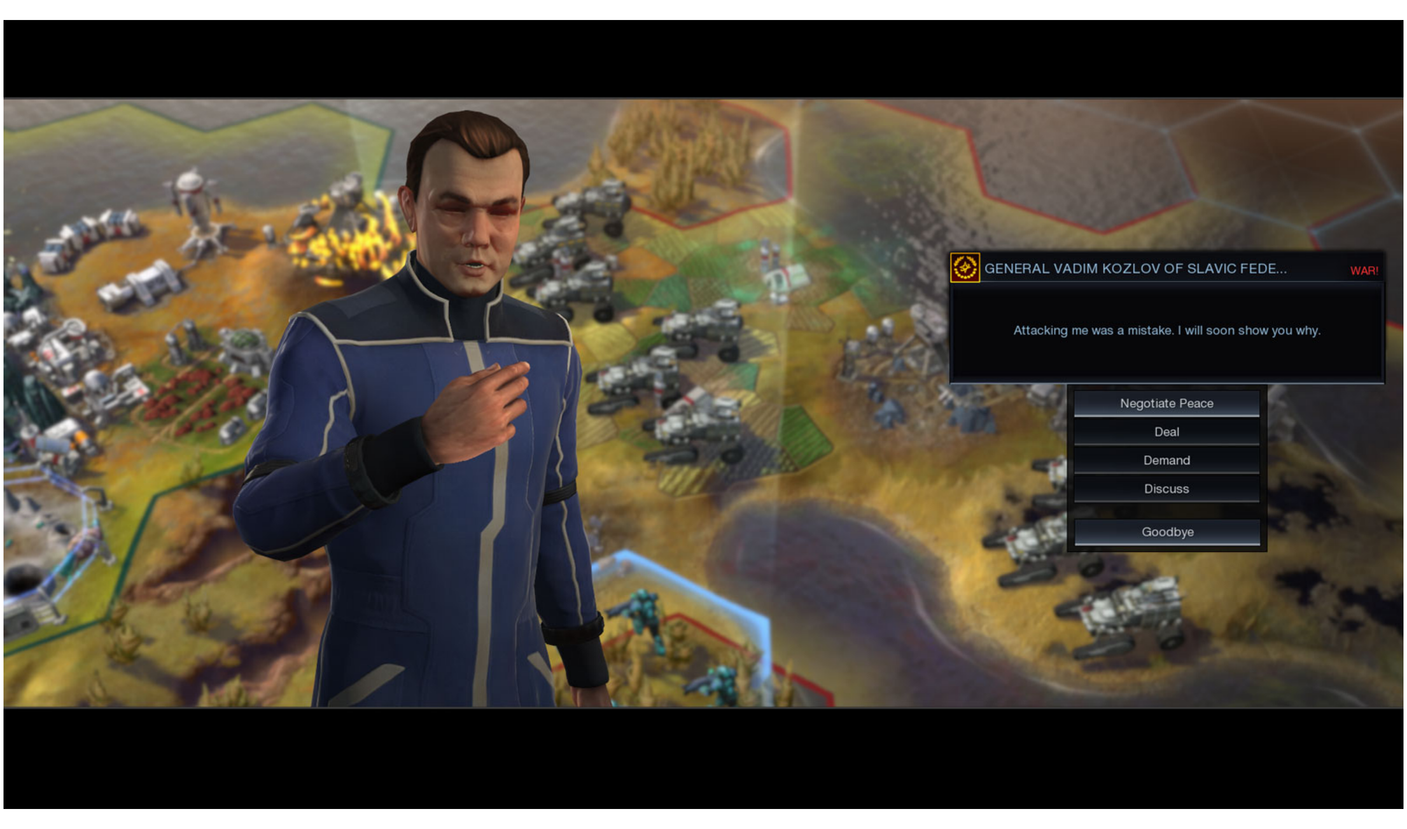
Paranoia Wins Games

Make sure that you assume the worst about every player in a game (not about the person you're playing, but about their intentions within the game). This isn't a morality tale. *Civilization* is about the pursuit of victory, and you aren't being judged as a good guy or a bad guy. Someone who stays on your side for 150 turns isn't any more likely to help you than your worst enemy once the end of the game approaches.

EXPECT WAR

Your point score isn't a way to intimidate anyone; it's an invitation. Having tons of wonders and large cities only means that you're worth conquering. Never leave any border in your nation exposed because you think that the player over there isn't going to fight you. It's true that they might not, but don't assume it. Keep at least enough defensive forces nearby to deter or at least slow down an attacker before they can get anything valuable.

Fortified units in rough terrain and ranged units in cities are both wonderful for this task. Try not to use too many troops, as that is a costly endeavor. Have enough people on hand to rival the number of enemies you're seeing anywhere near the border in question. Is it vacant? Well, then you should be the one attacking. See several troops in the vicinity? Keep a few people ready. See huge piles of units over there? Get ready for a fight, and take a long look at your other borders, too. People won't always attack by themselves (this is also true of the computer).

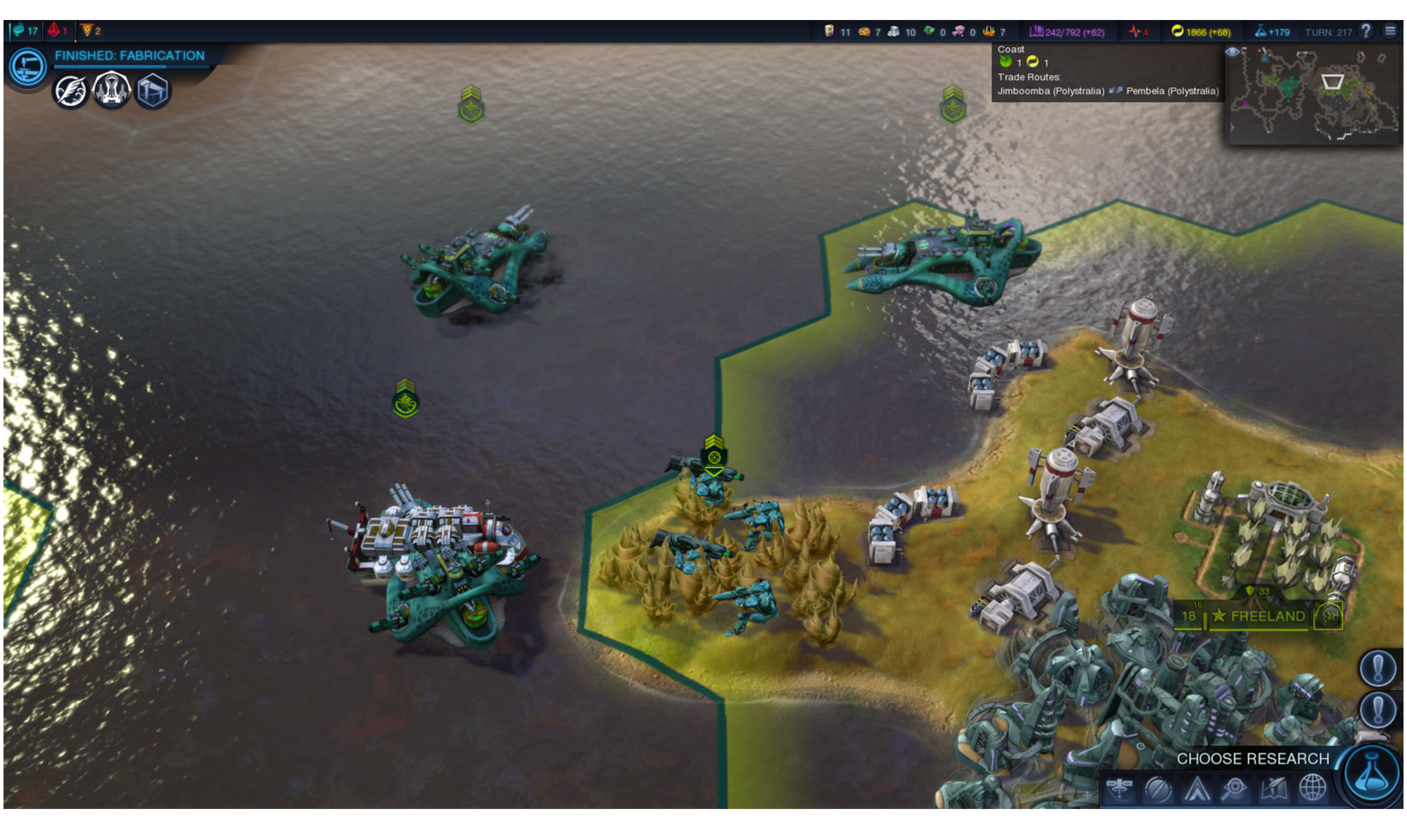


Attacking me was a mistake. I will soon show you why.

RULE THE WAVES, WATCH THE SHORES

Naval forces can bring a city's defenses down very quickly. Fast naval movement allows units to approach a city and bombard it on the city turn, even fairly early in the game. The mix of a single fast unit and a good naval attack can topple a coastal city on Turn 1 of a war.

Keep your navy prepared for war if you have any exposed coastal cities. Leave them at the edge of your borders so that nothing gets close enough to assault your cities without your knowledge. Don't let anyone push too close, even during times of peace.



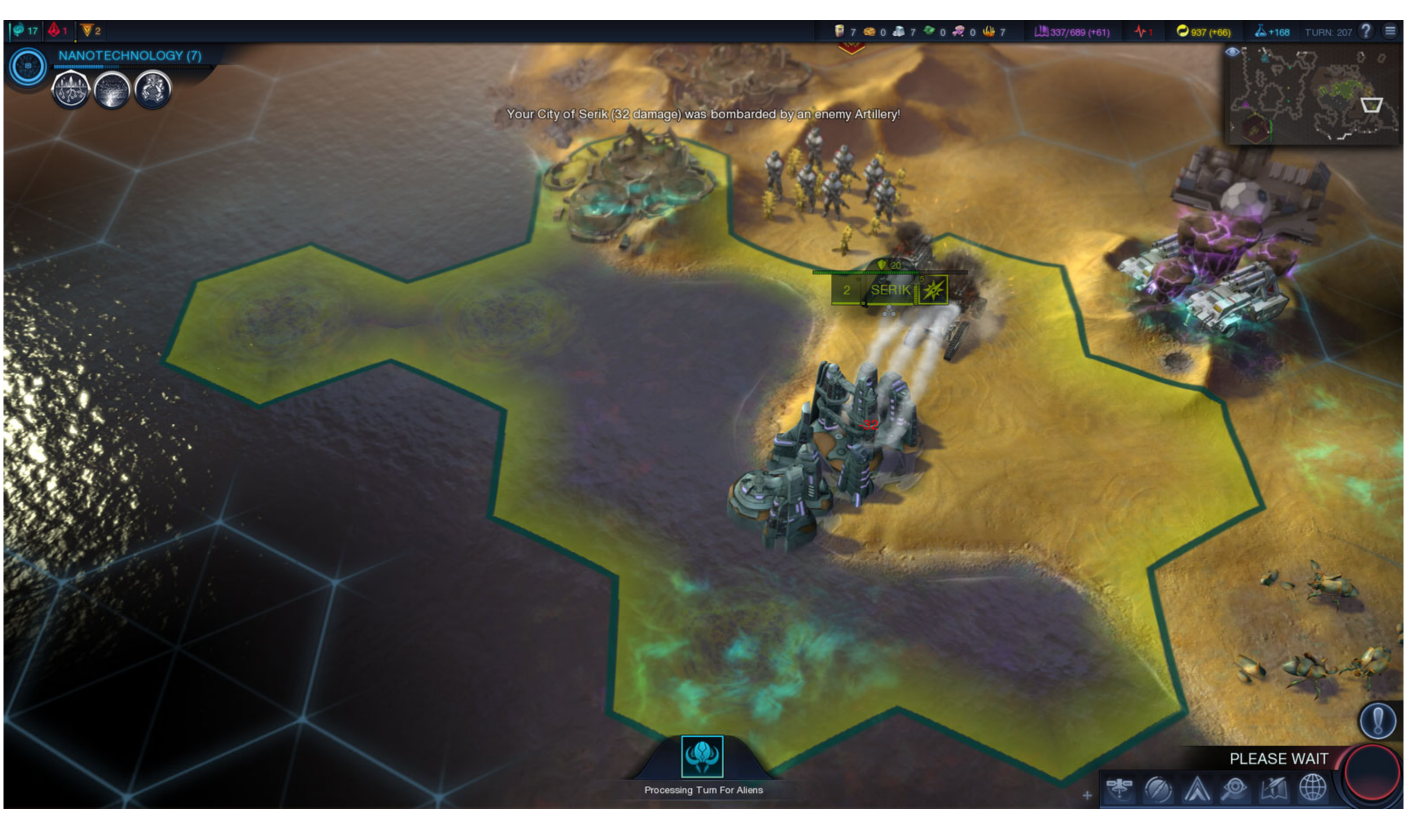
FIGHT IN BURSTS

A common weakness of conquerors, especially in single-player games, is to reach a certain point with their nation and start eternal warfare against the rest of the world. This is not a good idea, especially in multiplayer games. You're unlikely to get so much of a lead against most foes that it's safe to rampage against everyone. People have more time to react, prepare defenses, forge alliances against you, and repel your attack.

Not every war has to beat an epic conquest. If you see an opportunity to get something good, seize that. Humans aren't like the AI. Other players won't always turn on you when you make a nasty war against another nation. "I would have done the same thing" comes into play a fair bit.

Usually, human diplomatic issues are entirely determined by positioning, power, and mind games. Act friendly while doing foul deeds, and you might get away with murder.

Be on the lookout for key opportunities to start a skirmish. See colonists without good enough escorts? Workers and improvements that aren't guarded? Weak cities? Open borders? These are all good reasons to start a war. Even if you only get one city, that is a huge edge on your opponent.

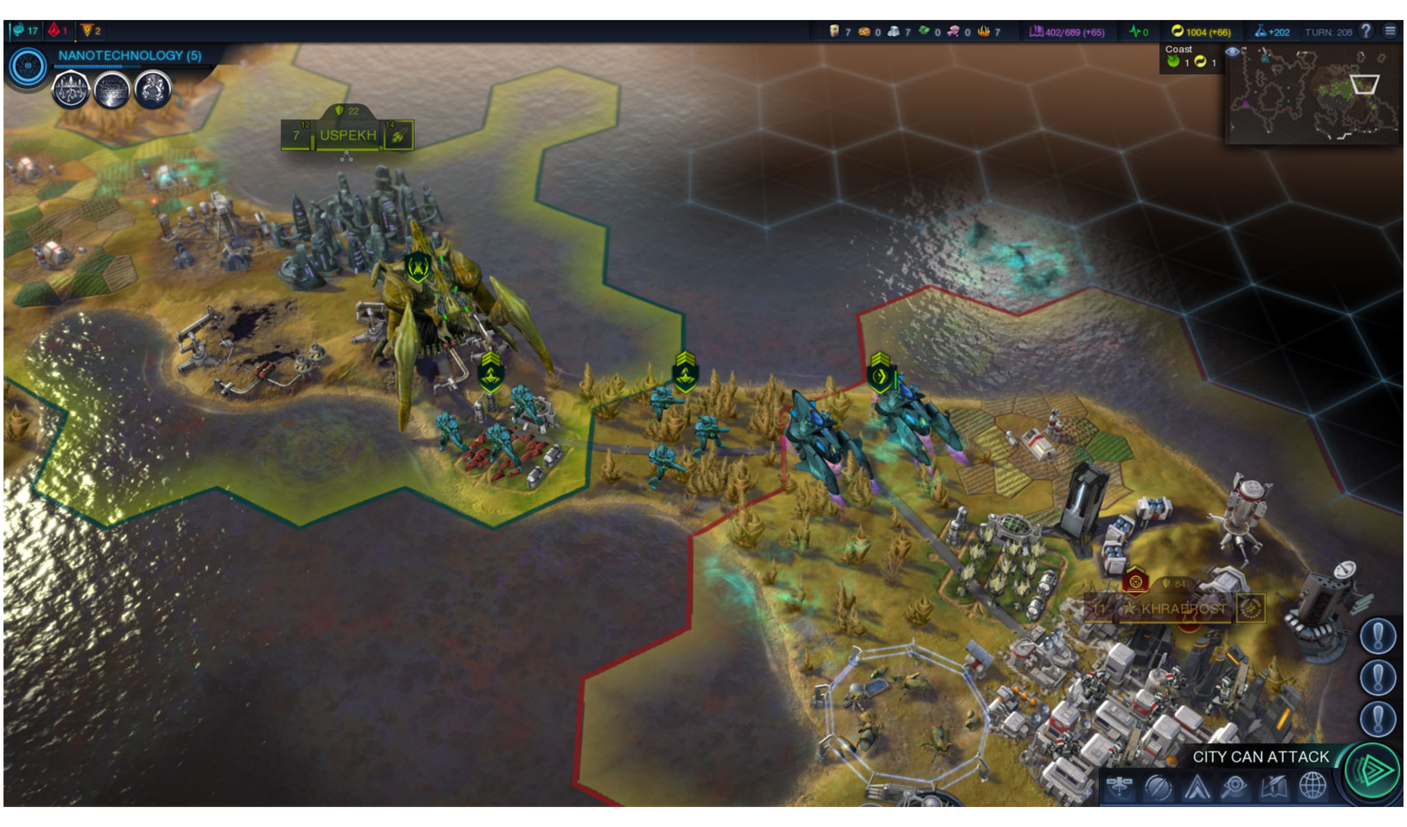


Your City of Serik (32 damage) was bombarded by an enemy Artillery!

EVERY TURN COUNTS

When building your army, assume that your target knows what's coming and is preparing a proper defense. Never approach an enemy city with the mindset that defenders won't arrive. Be ready for air units to rebase, defensive buildings to be purchased, and new units to race along the roads. The city you see ahead rarely appears as weak on Turn 3 of a war as they do on Turn 1. Every single moment matters.

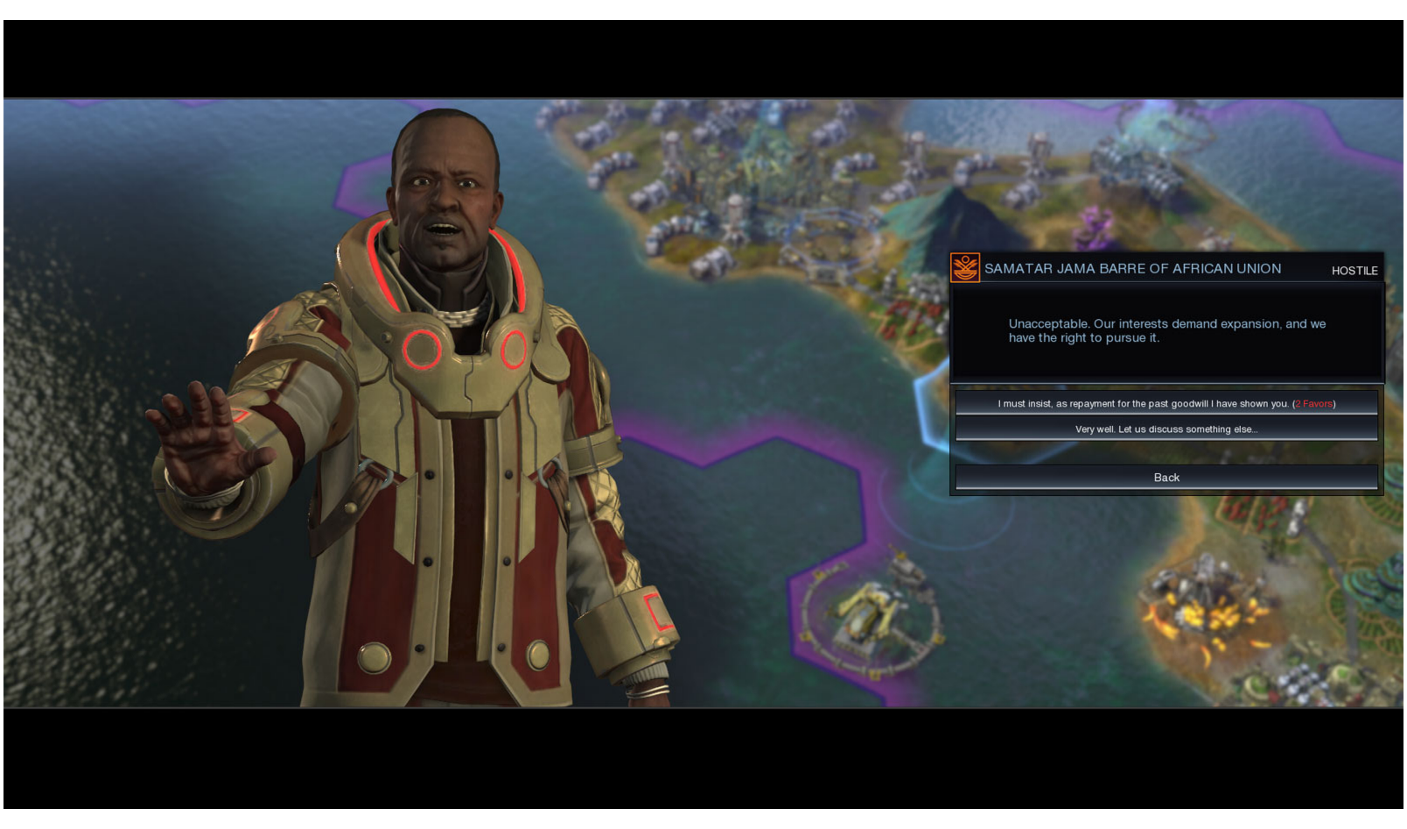
Count on enemies to make smart decisions, and simply be happy when they don't.



YOU TWO GO AHEAD AND FIGHT

The oldest trick in the book is to have your enemies fight each other. Humans are extremely susceptible to mind games. Point out when another player has the most points. Warn others, with "genuine" concern, if anyone has too many virtues or too large a military. Joining forces against larger targets is wise, but it's better for your civilization if you deceive others into fighting without demanding your involvement in the process.

Don't let other people do this to you. Never start a war out of fear. Do it because you have a better chance of winning the game by proceeding. When other people communicate with you during a game, be polite. Be funny. Have a good time with them. And, ignore almost everything that they say, unless it has direct use for you and has provable benefits.



Unacceptable. Our interests demand expansion, and we have the right to pursue it.

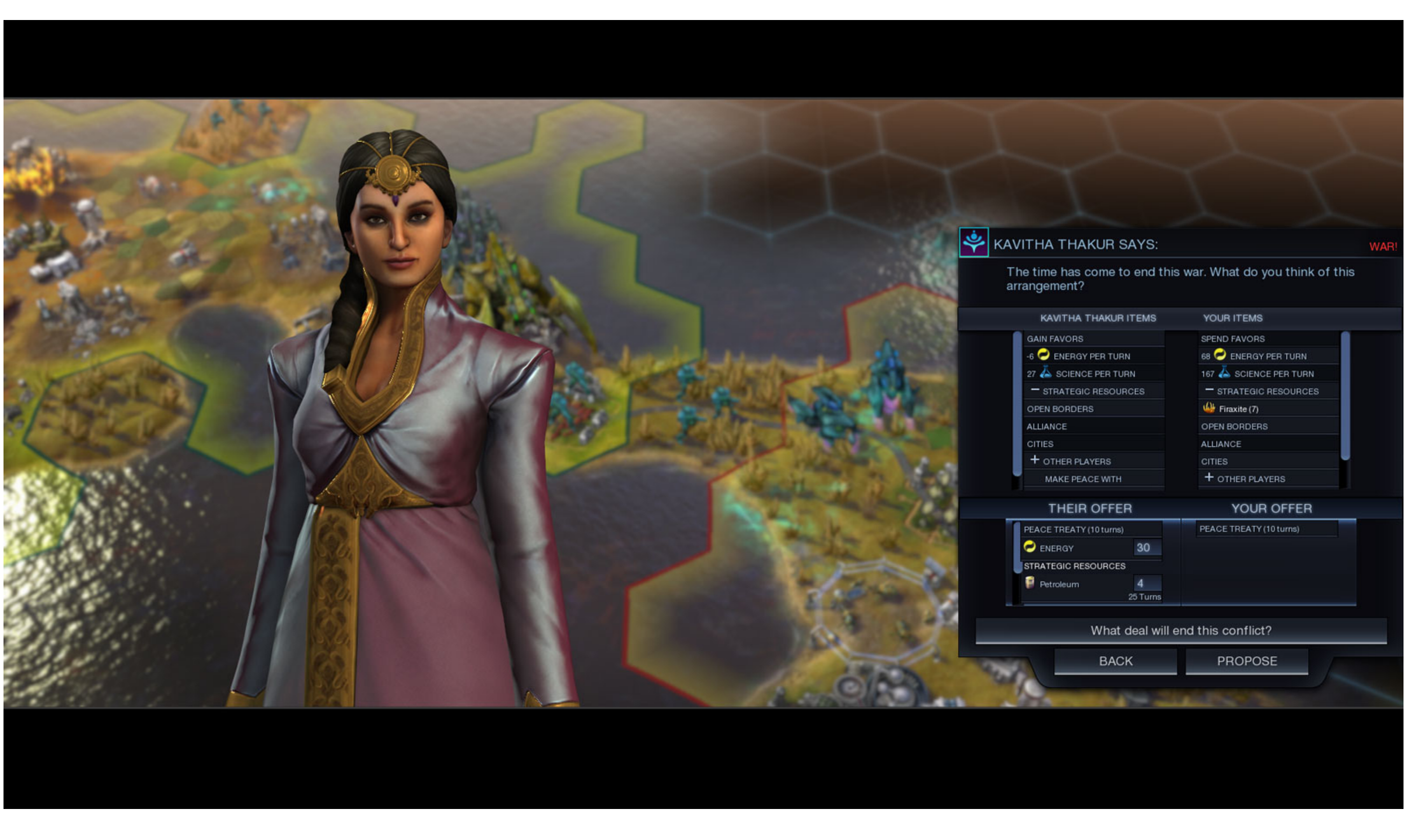
I must insist, as repayment for the past goodwill I have shown you. (2 Favors)

Very well. Let us discuss something else...

ASYMMETRIC WARFARE

There are some opponents that you can't beat militarily. They might have better land, a larger military, Might virtues, or more experience as a tactical leader. Whatever the case, realize that you cannot win a traditional battle, and stop trying to do this. Instead, move the goalposts, and try a different type of battle.

In asymmetric warfare, you don't try to win by defeating your enemy. Instead, you win by doing more damage to them than they're willing to take. End wars by crippling your adversaries' economies. Destroy their tile improvements, kill their trade units, steal workers, or lure them back into your defensive chokepoints and kill their units. This way, you can hurt them even if you cannot take a single one of their cities.



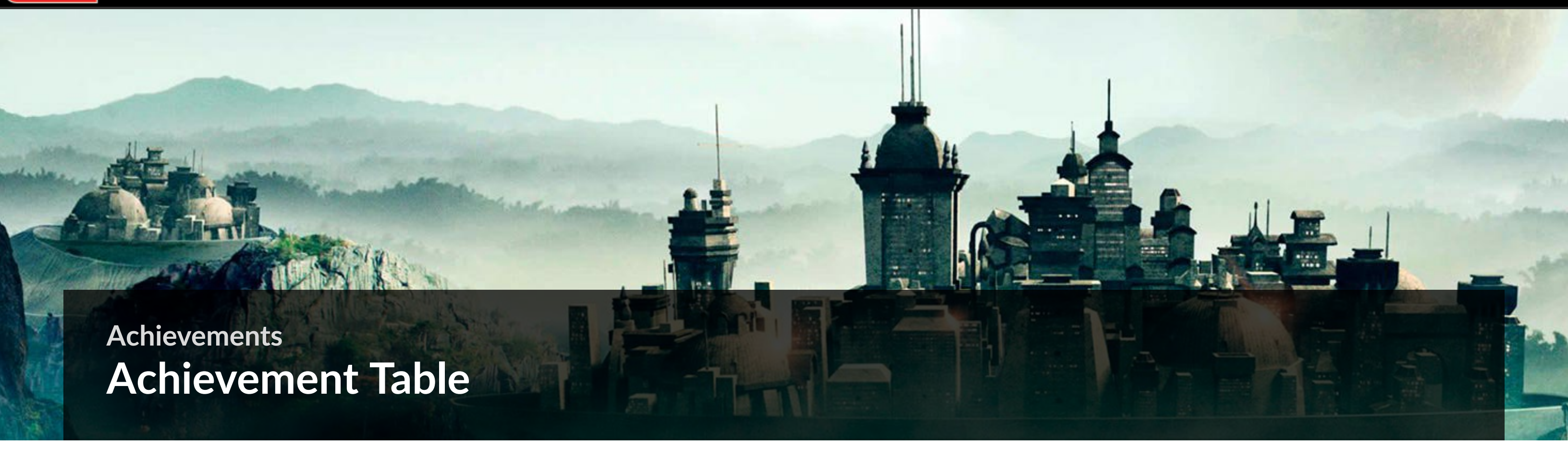
The time has come to end this war. What do you think of this arrangement?

KAVITHA THAKUR ITEMS	YOUR ITEMS
GAIN FAVORS	SPEND FAVORS
-6 ENERGY PER TURN	68 ENERGY PER TURN
27 SCIENCE PER TURN	167 SCIENCE PER TURN
− STRATEGIC RESOURCES	− STRATEGIC RESOURCES
OPEN BORDERS	Firaxite (7)
ALLIANCE	OPEN BORDERS
CITIES	ALLIANCE
+ OTHER PLAYERS	CITIES
MAKE PEACE WITH	+ OTHER PLAYERS

THEIR OFFER	YOUR OFFER
PEACE TREATY (10 turns)	PEACE TREATY (10 turns)
ENERGY 30	
STRATEGIC RESOURCES	
Petroleum 4 25 Turns	

What deal will end this conflict?

This bitter pill is a way to encourage neighbors to fight other targets. Your first goal in a war is to win. The second goal is to not lose. Fast raiders, groups of cheaper melee units near cities, and stacked defensive bonuses are all ways to improve this process.



Achievements

Achievement Table

Achievements

Title	Description
Chief Extraterrestrial Officer	Win a game as Fielding
The Big Payoff	Win a game as Hutama
Shining Path	Win a game as Daoming
Gagarin's Legacy	Win a game as Kozlov
Father of Nations	Win a game as Barre
The Art of the Infinite	Win a game as Elodie
Never Surrender	Win a game as Bolivar
Moksha	Win a game as Kavitha
Grand Galactic Inquisitor	Win at least one game with each leader
Beep... Beep.... Beep...	Win a game on Sputnik Difficulty
Godspeed	Win a game on Mercury Difficulty
Поехали! (Pojexali!)	Win a game on Vostok Difficulty
8 Days or Bust	Win a game on Gemini Difficulty
Order of Lenin	Win a game on Soyuz Difficulty
The Eagle Has Landed	Win a game on Apollo Difficulty
Resistance is Futile	Achieve Domination Victory
We Are Not Alone	Achieve Contact Victory
Phone Home	Achieve Promised land
Planned Obsolescence	Achieve Emancipation
It's Full of Stars	Achieve Transcendence
Steely Eyed Missile Man	Achieve one of each other victory
Aim to Misbehave	Win a game on the Duel Map
Tiny Big Planet	Win a game on the Tiny Map
That's No Moon	Win a game on the Small Map
Pale Blue Dot	Win a game on the Standard map
The View is Tremendous	Win a game on the Large Map
Poseidon's Children	Win game on Atlantean Map
That New Planet Smell	Win game on Protean Map
A Planet the Very Brother of Your Own	Win game on Terran Map
When Maui Came To This World	Win game on Archipelago Map
Just Like Voskhod 2	Win game on Taigan Map
Cruel and Unusual Geography	Win game on Equatorial Map
Fearful Symmetry	Win game on Skirmish Map
United Federation of Planets	Win at least one game on each map size and type
Cylon Computer Virus	Win a multiplayer game
Valley of the Time Tombs	Build all wonders
The Machineries of Joy	Build any wonder
I'm in the middle of some calibrations	Play with a Mod
Mighty Fine Shindig	Develop a city to produce more than 100 culture per turn
Energize	Develop a city to produce more than 100 energy per turn
What Was Once Only Imagined	Develop a city to produce more than 100 science per turn
Making Way for a Hyperspace Bypass	Raze 100 Alien nests
I'm On Another Boat	Embark a unit
Game over, man!	One Hit Kill
42	Research All Techs
C'mon you apes, you wanna live forever?	Fully explore the Might virtue tree
Live Long and Prosper	Fully explore the Prosperity virtue tree
Logic is the beginning of wisdom	Fully explore the Knowledge virtue tree
No bucks, No Buck Rogers	Fully explore the Industry virtue tree
Mark II	Upgrade a Unit
Enemy Within	Kill an enemy spy
Patent Pending	Steal a tech
Rules of Acquisition	Purchase 1000 Tiles
There is no Try	Get beaten to wonders 10 times.
I've made a lot of special modifications myself	Download a mod
The Only Good Bug is a Dead Bug	500 Aliens Killed
Walk Without Rhythm	Killed Siege Worm
Light This Candle	Launch an orbital unit.
A Fistful of Dollars	Unlock All Tier 1 Virtue Synergy Bonuses
For A Few Dollars More	Unlock All Tier 2 Virtue Synergy Bonuses
Once Upon a Time in Space	Unlock All Tier 3 Virtue Synergy Bonuses
So Say We All	Achieve max level in Purity
Homo Aliena	Achieve max level in Harmony
The Sound of Inevitability	Achieve max level in Supremacy